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DEHRADUN law REVIEW

(A Peer Reviewed Journal)

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DEHRADUN LAW REVIEW

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EDITORIAL

It is a moment of immense pleasure and intellectual exaltation while bringing up Volume 13, Issue I of Dehradun Law Review, a journal of Law College Dehradun, Uttaranchal University. The era of globalization has a symmetric impact upon the different parochial legal frameworks and paradigms. A symphonic perception of law and justice across the globe is in the process of evolution. This paradigmatic shift in global legal education and research necessitates an epistemological acclimatization in legal research and investigations in consonance with the evolving global perceptions in the wider context of law and justice. The present issue of our law journal is an honest attempt to assimilate these evolving legal paradigms and socio-legal concerns resonating in the articles of law scholars.

Our academic endeavour has successfully overcome the onslaughts of pandemic ridden globe and continues to sail incessantly with an avowed purpose of producing quality legal research materials for the satisfaction of global legal academia. The editorial team of Dehradun Law Review deserves accolades for their sincere efforts towards the qualitative improvement of the journal.

We feel honoured and obliged to receive contributions from eminent legal scholars of the country and overseas as well. Socio-legal issues concerning with China's Stand on Responsibility to Protect and its Responses, Bio-Politics of Corona-Virus, Liability Arising In Case Of Malfunction Of Artificially Intelligent Devices, Tobacco Vendor Licensing In India, Ramification of Pandemic on Human Rights, Climate And Crime In India, E-Court Governance, Cyber Security in Civil Aviation, Human Enhancement Technologies, Existentialism and Contemporary Legal Philosophy, Scenario of Sexual Harassment in Higher Educational Institutions and True Assessment of Scientific Evidence by Judiciary have been comprehensively discussed and analyzed in depth.

Vasavadutta Mishra and Dr. K Ratnabali explore the current situation in Asia in the context of China being a permanent member of Security Council of UNO. China appears not standing for peace but imperialism.

Ganiat Mobolaji Olatokun discussing the Impact on the relation between State and Biological Elements of Life, popularly called As Bio-Politics, apparently visible on the life of Nigerian People as worse consequence of Corona virus Pandemic.

Dr. Shampa Dev in his paper surveys all Indian laws to explore which laws would apply in cases of AI's malfunction. It suggests the application of consumer protection laws to deal with product defects, user responsibility in case of faulty handling, and information technology laws in malware or virus attacks.

Prof.(Dr.) Ashok R. Patil is, in his paper advocating for making the license compulsory for tobacco vendors, for effective implementation of the provisions of the Cigarette and Other Tobacco Products Act, 2003.

Prof. (Dr.) S.D. Sharma has discussed in his paper the impending impact on life and liberties off common man's life because of current Pandemic of Covid-19, and stressing on the need of human cooperation and coordination to overcome from it.

Mr. Pramod Tiwari and Prof. (Dr.) Pinki Sharma attempt to trace out the role of climate in crime causation in India. It emphasized that either every human behavior is a 'rational choice' of man or the human behavior is the result of "free-will."

Dr. Laxman Singh Rawat in his paper points out the enormity of pending cases in Indian Courts and advises the maximum use of technology for the sake of speedy disposal of cases and ensuring justice.

Prof. (Dr.) Kanwal DP Singh and Dr. Jitender Loura have outlined the importance of use of modern advance technology in Aviation Security, thus, ensuring the life and liberty as enshrined in Article 21 of the Indian Constitution.

Miss Vidya Menon emphasized on use of RFID Technology for bodily improvement of Human Beings.

Dr. Vikram Singh and Dr. Shweta Thakur expressed their views that law is for the improvement of human life.

Mr. Baij Nath and Dr Sujata Bali in their paper suggest the legal protection of women against sexual harassment in higher education Institutions.

Finally, Dr. Anjum Parvez and Prof. (Dr.) Rajesh Bahuguna highlight the problems faced by judges of Indian Courts while assessing the true value of scientific evidence.

Perfection is a platonic goal of any scholastic and philosophical project and inconsistencies in the same is an Aristotelian reality. Accepting the same with due respect and humility, we sincerely look forward to constructive criticism, suggestions and constant feedback for the purpose of enhancement of standard and quality of our journal. In the same vein, I express my sincere gratitude as well as compliments to the contributors of articles and solicit their continuous support in this academic sojourn.

God Speed!

Prof. Rajesh Bahuguna
Editor-in-Chief

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CHINA'S STAND ON RESPONSIBILITY TO PROTECT AND ITS RESPONSES: AN ANALYSIS

Vasavadutta Mishra*
Dr. K. Ratnabali**

Abstract

The application or otherwise of the international norm of intervention during grave human rights violations in a state under the principle of Responsibility to Protect (R2P) has been a point of debate in several instances. The present paper discusses the current standpoint of one of the permanent members of the United Nations UNSC i.e. China on R2p and how it shifted from strict interpretation to the liberal interpretation of the R2P. It also gives a holistic picture of how and to what extent China has accepted R2P and further elaborates on differential treatment of the countries under R2P. In this paper, the author has argued that the China has not accepted the R2P fully but only to the extent of prevention of the humanitarian crisis which is the first pillar of the R2P.

Key words-
Responsibility to Protect, China, Humanitarian Crisis, Intervention, Sovereignty

1. INTRODUCTION

The ambiguities and controversies over the practice of humanitarian intervention pioneered the advent of one of the most recognized principles of modern international law i.e. the Responsibility to Protect (hereinafter referred to as R2P). The R2P principle was introduced for the very first time via the Report of International Commission on Intervention and State Sovereignty (hereinafter referred to as ICISS) published in 2001. The ICISS was established as an autonomous and impartial commission in September, 2000 by the Government of Canada to engage with the issues as to the principle of sovereignty, intervention and protection of human rights. The proposed Principle got universal recognition in 2005 at United Nations (hereinafter referred to as the UN) World Summit when the member states endorsed R2P against war crimes, crimes against humanity, ethnic cleansing and genocide.[1] Again, the principle of R2P received overwhelming support at the UN General Assembly Debate in July 2009 after the then Secretary General of UN Ban-Ki-Moon presented a Report on

*Ph.D. Research Scholar at Faculty of Law, University of Delhi;
** Professor at Faculty of Law, University of Delhi

[1]Para 138 and 139 of World Summit Outcome Document 2005

implementation of R2P few days before the said Debate.[2] Since then R2P has not been made a formal agenda of General Assembly up till now at UN General Assembly Plenary Meeting[3] on the R2P (2021) wherein majority of the states once again committed to the principle of R2P and discussed points relating to the implementation of the principle.[4] However, China objected to the implementation of R2P along with few other states expressing their disagreement to the same.[5] The recognition of R2P has also influenced the discourse over humanitarian intervention even though many have argued that both the principles are different.[6]

After receiving such international recognition, R2P is not sans controversy in relation to its validity as an international norm. Since many States have refused to accept their responsibility under R2P, even after agreeing on it at 2005 summit, therefore, many scholars have claimed that the principle is still in the process of evolution. Even though the States evade their responsibility under R2P, the UNSC resolutions have invoked the responsibility of States on the basis of the Principle of R2P. For instance, in theResolutions 2502,[7] 2499,[8] 2463,[9] 2459,[10] 2457,[11] 2449,[12] 2296,[13] etc., the UNSC has invoked the responsibility of the state under R2P. Moreover, the Presidential Statements have time and again made reference to R2P[14] in order to recall the responsibility of a state towards its population. Though there are denial of responsibilities by states in the implementation of R2P, yet these denials, of itself, does not challenge the very principle of R2P.

The R2P is a norm of international law that emerged in the year 2001, as a better substitute to the practice of humanitarian intervention which existed earlier[15] in terms of

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[2]Adoption of UN General Assembly Resolution 63/308 acknowledging Secretary General's Report on R2P

[3]Held on 17th and 18th May, 2021 at 75th Session of General Assembly

[4]Adopted UN General Assembly Resolution 75/277 on the R2P and the Prevention of Genocide, War Crimes, Ethnic Cleansing and Crimes against Humanity" 2021

[5]China again expressed its concern over the varying definition of the R2P and the elements of the principle; Report of Global Centre for the R2P "Summary of 2021 UN General Assembly Plenary Meeting on the R2P" (June 2021)

[6]For instance authors like P.H. Winfield and Farrokh Jhabvala while defining humanitarian intervention observed that it involves more of a right of a state to employ military measures for civilian protection. Whereas R2P is considered as a responsibility to protect civilians by employing military as well as non-military measures; Manoj Kumar Sinha, "Is Humanitarian Intervention Permissible in International Law" 40 JILI 66 (2000); P.N. Premsy, "Legitimacy of Humanitarian Intervention under International Law" 27 CULR 386 (2003)

[7]Adopted on 19th Dec. 2019 on Democratic Republic of the Congo

[8]Adopted on 15th Nov. 2019 on Central African Republic

[9]Adopted on 29th Mar. 2019 on Democratic Republic of the Congo

[10]Adopted on 15th Mar. 2019 on South Sudan

[11]Adopted on 27th Feb. 2019 on Silencing the guns in Africa

[12]Adopted on 13th Dec. 2018 on Syria

[13]Adopted on 29th Jun. 2016 on Sudan (Darfur)

[14]More than 60 UNSC Resolutions have made reference to R2P for invoking responsibility under the R2P.

[15]Few scholars gave an indirect hint while giving definition of humanitarian intervention that the new international norm of R2P has its genesis in the former customary practice of Humanitarian Intervention. For instance, Alan J. Kupermanobserved that- "humanitarian intervention is the use of diplomatic, economic, and

protecting the civilian victims of grave human rights violations. However, consensus over the authority of UNSC to exercise its powers under the UN Charter to invoke R2P has given rise to many controversies as to the role of its member states. The role of permanent members of UNSC with exclusive veto power determines its functioning. China is one of such permanent membersof UNSC and a rapidly growing economy. Thus, it is imperative to study China's stance on the global norm and practices followed by the international community.

The present paper discusses the current standpoint of China on R2P and how it shifted from strict interpretation to the liberal interpretation of R2P. It also gives a holistic picture of how and to what extent China has accepted R2P and further elaborates on differential treatment of the countries while implementing R2P.

2. Responsibility to Protect

Under R2P norm, sovereignty, perceived as something more than the state's prerogative, is interpreted to include state's obligation towards its population. According to R2P, sovereignty entails duty of a state to protect its population from grave human rights violations which is likely to disturb peace of the region. But where state fails or is unable to protect its population then, the responsibility shifts to the international community to take necessary measure for protection of civilians of the concerned state. Thus, the responsibility of the international community emanates only from the failure or inability of a state to take actions in case of egregious violations of human rights of its civilians. Appalling humanitarian conditions within a state does not give right to another state to interfere within domestic affairs of the former unless responsibility shifts on international community to restore peace. This pre-condition for the application of the Principle of R2P has also impacted positively on the debate over legitimacy of humanitarian interventions. As stated in the ICISS Report, where responsibility shifts to international community,UNSC may take necessary measures under the UN Charter to address the situation. But, it nowhere mentions in the Report that it is the sole prerogative of UNSC to interfere when needed, although international community may call for collective measures through UNSC to deal with the crisis.[16] Also, UNSC has been considered as a legitimate authority to take measures for protection of civilians in crisis. Further, the Report also maintains that the actions authorized by UNSC are considered to be justifiable. The reason behind giving such authority under ICISS Report to UNSC in matters of crisis is that it has obligation under UN Charter to maintain international peace and Security.[17]

The ICISS Report specifies circumstances for application of R2P, such as severe abuse of human rights due to civil unrest or war within a state or grave violation caused by the state itself acting as an oppressor and persecutor against its own population. Moreover, the Report specifically lays down the grounds on which military intervention may take place; for example, mass killing,rape, expulsion, etc. resulting either from state's failure

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military resources by one or more states or international organizations intended primarily to protect civilians who are endangered in another state."; Michael Goodhart (ed.), Human Rights: Politics & Practice, 335 (Oxford University Press, New York, 2009)

[16]Agreed at World Summit 2005

[17]Article 24 of the UN Charter

or intentional state's act. However, at 2005 World Summit only four grounds were recognized for operationalization of R2P i.e. War crimes, ethnic Cleansing, Crimes against humanity and Genocide.[18]

In 2009, Secretary-General Ban-Ki-Moon's Report elaborated on three cornerstones of R2P,considered as three pillars for implementation of R2P. These three pillars are - firstly, the responsibility of a state towards its population; secondly, the responsibility of international community to help concerned state in discharging its duty under R2P and; thirdly, international community's responsibility to take effective and prompt measures for civilians security on failure of the concerned state.[19] The third pillar calls for taking peaceful measures by international community to address the crisisand when such measures prove to be insufficient, then resorting to enforcement measures in accordance with Chapter VII of the UN Charter. Further, Special Advisor to the then Secretary General also pointed out four main ingredients for operationalization of R2P namely, Capacity Building & Rebuilding of the concerned state; Evaluation and Warning of crisis in advance; determined and prompt action reaction to the crisis; and lastly, cooperation with the regional and sub-regional organization to resolve the conflict.[20] These ingredients suggested by the Special Advisor

Edward C. Luck can be said to be inspired from the elements of R2P mentioned in the ICISS Report. According to the said Report, R2P consists of three elements namely responsibility to Prevent, to Protect and finally to Rebuild.[21] The element of responsibility to prevent contains early warning and evaluation of crisis, addressing the root cause of conflict, peaceful negotiations to avoid conflict, etc. whereas responsibility to protect contains taking prompt and effective measures when preventive measures fail or prove to be insufficient. Lastly, responsibility to rebuild embodies obligations after the intervention has taken place to restore peaceful situation existed prior to the conflict by ensuring rehabilitation of civilians as well as reconstruction of the infrastructure of that state.[22]

3. China's stand on R2P

China, being one of the victims of colonial oppression, has always considered the principle of sovereignty as a non-negotiable and inviolable right of a state under international law. It has been a constant supporter of the principle of sovereignty over any other principles of international law. Interestingly, the said principle has itself evolved over a period of time making it a more dynamic concept which now cannot be confined to its traditional doctrinaire limits. Previously, the traditional interpretation of sovereignty emphasized more on the non-interference as well as supremacy of the authority and territorial integrity of the state. Although the contemporary idea of

[18] ICISS Report, Supra note 1

[19] Alex J. Bellamy, "The Three Pillars of The Responsibility to Protect", Special Issue PensamientoPropio (pg 39 to 64) (January-June 2015, Vol. 20)

[20] Edward C. Luck, The United Nations and The Responsibility to Protect, Satnely Foundation Policy Analysis Brief (August 2008)

[21] ICISS Report 2001

[22] Ibid

sovereignty not only encompass the components of traditional idea but extends to state's obligation to be a responsible sovereign. This shift in the interpretation of the principle of sovereignty has affected the stance of many states, including China, towards it. Thus, in order to understand the present outlook of China towards the principle of sovereignty and humanitarian intervention in the form of R2P, it is imperative to analyze its past conduct as well as its foreign policy.

The foundation of foreign policy of China is said to be enshrined in the five principles embodied in the Panchsheel Treaty[23] entered into between China and India. The said treaty dealt with the five principles which shall govern the international relations between the two countries. Subsequently, the said principles have been considered as fundamental in governing the international relations and, therefore, later adopted by other countries as well as by the UN through Resolutions adopted by the General Assembly.[24] For the purpose of humanitarian intervention, out of five there were two main principles i.e. non-interference in the domestic affairs and respect of each other's sovereignty and territorial integrity. These two principles underpin the Chinese foreign policy when it comes to the approach of China towards the idea of humanitarian intervention.

According to the Independent Foreign Policy of China regarding Peace,[25] it is necessary for the states to adhere to principle of non-intervention for preservation of world peace. It reiterates the principles contained in UN Charter as to peaceful settlements of disputes, non use of force and abstention from interference under any pretext. Nowhere in the policy has intervention been professed as a *modus operandi* for maintenance of international order and security. In fact, on the contrary, it sees intervention of any kind as a threat or disruption to international peace.[26] However, China has also expressed its commitment towards the policy of resolving international issues, such as barbaric international crimes and other matters through cooperation and assistance of the international community. Here, the term "international crimes" can be interpreted to include the grounds of humanitarian intervention under R2P viz. genocide, war crimes, ethnic cleansing and crimes against humanity. But, China has insisted, under the said policy, on collective measures rather than taking unilateral measures to curb and resolve international issues. So, in a way it can be said that the Chinese Foreign Policy of Peace supports the idea of collective intervention and discourages any unilateral threat or use of force or other interventions. This stipulation as to collective action under the Chinese policy has helped it to evolve its stand on intervention as well as respond according to the need of the situation considering the pragmatic approach towards the issue.

Despite China's allegiance to the traditional principle of sovereignty, it acknowledged the significance of collective intervention to deal with humanitarian issues thereby impliedly accepting the fact that a state has no right to commit international crimes against its own population. China has also admitted that in exceptional, rare and serious

[23]Five Principles of Peaceful Coexistence, signed on 29th April, (1954).

[24]General Assembly Resolution 2131 (XX) (21 December 1965)

[25]China's Independent Foreign Policy of Peace (19th Sept. 2003)

[26]Ibid

circumstances, the collective endeavour of the international community to address the issue is crucial. It has also been argued by some authors that China recognizes that exceptionally grave situations require attention along with the action in the form of intervention by the international community. It shows that China believes in the protection of human rights as a valid cogent ground for intervention. This belief has been expressed by Chinese diplomats on different occasions as well.[27]

However, China believes that such collective endeavours for intervention in grave situations stated above, should adhere to the provisions of the UN Charter and with the consent of the state where intervention is to take place. Furthermore, China maintained that the international response should conform to the views of the affected countries by asserting the significance of the role of regional organization.[28] Thus, it can be safely said that China backs certain essential elements of the Principle of R2P, as it acknowledged the coordinated efforts of regional as well as national and international entities in preserving peace. It has insisted on the moral obligation of these entities in order to ensure peace and tranquility in the international community.

The involvement of China in the Peacekeeping Missions of UN also manifests that it subscribes to the idea of resolving humanitarian crisis with the help of international entity i.e. United Nations. It cannot be merely treated as rhetorical but a significant step on the part of China. China has been seen gradually increasing the number of its troops sent for UN Peacekeeping Missions to address the humanitarian emergencies. For instance, according to the UN Peacekeeping Mission Ranking as of 31st March 2021, China ranked 9thin contribution of troops for such mission, out-performing other four permanent members' of UNSC.[29] According to the same UN data of 2008, it ranked 23rd.[30] It shows that China's stand on the responsibility of international community towards protection of civilians of another state, has significantly transitioned over a period of time.

China has sent its security personnel under Peacekeeping missions irrespective of the fact that under some missions they are authorized to employ force for protection of civilians and in self defense. However, there is no uniform approach adopted by China towards peacekeeping missions for every humanitarian crisis. Thus, China's stance on intervention is considered to be complex because, on paper, it has always advocated for non-intervention and is believed to be a staunch supporter of sovereignty as a sacrosanct principle of international law but in practice it has been observed to be earnestly involved in the United Nations humanitarian operations. Technically, such missions are said to interfere in the internal affairs of a country where crisis prevail. The thrust of Peacekeeping missions is substantially to safeguard human rights of civilians contributing in establishment of peace even though it takes place after obtaining the consent of the host state.

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[27]Statement given by Chinese Foreign Minister as to the necessity of collective action for securing peace in Africa at United Nations UNSC Summit Level Meeting held on 25th September 2007.

[28]Ibid

[29]Uniformed Personnel Contributing Countries by Ranking: Experts on Mission, Formed Police Units, Individual Police, Staff Officer, and Troops (31 March 2021). In the same Ranking of 2021, United States of America ranked 82nd, United Kingdom ranked 37th, Russia ranked 68th and France ranked 29th.

[30]Contributor Countries by Ranking to UN Peacekeeping Operations (monthly summary) As of: 31st Dec. 2008

It is apparent from the practice adopted by China that it has put its responsibility under R2P into action by participating and sometimes playing proactive role in prevention of humanitarian crisis. But, notwithstanding such practice, it has many times used its veto power thereby obstructing the UNSC's Resolution as to any crucial matters involving grave human rights violations in a state.[31] This approach is intriguing as it represents that China does not support any intervention, including condemnation, even in cases of utmost exigency, particularly where the concerned state itself is the perpetrator of the crisis. But, in spite of use of its veto, China has on different occasions taken diplomatic measures stimulating formal discussions to reach amicable solutions without using any kind of violence. For instance, in the Darfur crisis, China acted as a diplomatic mediator in deployment of UN Peacekeeping forces in Sudan even though it had abstained from voting for UNSC Resolution regarding the expansion of mandates of UNMIS (United Nations Mission in Sudan)[32] and Resolution seeking disarmament of Janjaweed militia, accused of committing grave human rights violations, as well as imposing arms embargo on Sudan.[33] But these instances are not indicative of China's thorough commitment to R2P but only suggest that it has narrowly shifted from its previous stance of treating sovereignty as an absolute principle to slight dilution of the principle to give effect to certain aspects of R2P in certain situations. Hence, China acknowledges some moral elements of R2P rather than the whole idea of it. It also recognizes that the sovereignty is susceptible to widespread human rights violations taking place within a state and allows international community to act under R2P.

Apart from supporting moral attribute of R2P, China also along with other member states of the UN explicitly endorsed R2P in the event of genocide, war crimes, crimes against humanity and ethnic cleansing at the United Nations World Summit held in 2005.[34] Again in the same year, it formally reaffirmed this position in its Position Paper on UN Reform wherein it acknowledged the responsibility of international community in cases of grave humanitarian crisis.[35] Furthermore, in the year 2006, it voted for the UNSC Resolution wherein the Council reaffirmed its support for R2P.[36] However, according to the UNSC Report, China was initially reluctant to approve this Resolution but later on agreed to approve the Draft Resolution provided the language of the Resolution should be the same as used in the Outcome Document of 2005.[37] It can be said that these instances illustrate the significant transition in the position of China towards R2P which also helped in the growth of R2P as an international norm.

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[31]For instance, China vetoed a draft resolution on Myanmar (S/2007/14) Even though the situation in Myanmar was considered to be one of the most dreadful humanitarian catastrophes of all time; China vetoed many Resolutions on Syria irrespective of the gravity of the crisis such as it vetoed draft Resolution (S/2011/612), (S/2012/77), (S/2012/538), (S/2014/348), (S/2016/1026), (S/2017/172), etc.

[32]UNSC Resolution 1706 (2006)

[33]Resolution 1556 (2004) Adopted by the UNSC at its 5015th meeting, on 30 July 2004

[34]High Level Plenary Meeting of General Assembly resulting in adoption of General Assembly Resolution on 16th Sept. 2005 ;Supra note1

[35]Position Paper of the People's Republic of China on the UN Reforms dated 7 June 2005

[36]UNSC Resolution 1674 adopted on 28 April, 2006

[37]UNSC Report: Update Report No.1 dated 8 March 2006 on Draft Resolution relating to Protection of Civilian in armed conflict

Notwithstanding its reaffirmation of the R2P, China has time and again shown its apprehensions towards the interpretation as well as implementation of the same. According to the UNSC Debates on Protection of Civilians, China had expressed its concern over misapplication of the norm of R2P. For instance, in the case of Northern Uganda, China insisted on giving due regard to the sovereignty of the state. Before this, in July 2005, China along with few other states opposed appointment of UN Special Envoy for fact finding operation in a crisis in Zimbabwe, arguing that it is a domestic matter of the state even though crisis affected around 2.4 million civilians.[38] Later on, in July 2008, China along with Russia vetoed a draft Resolution imposing arms embargo on Zimbabwe maintaining its previous stance on situation in the Zimbabwe.[39] Further, during Darfur Crisis in 2006, China persuaded to incorporate the requirement of consent of government in the UNSC Resolution 1706,[40] which called for transformation of AMIS (African Union Mission in Sudan) to UN Peacekeeping operation and which paved way for deployment of UNAMID (UN-African Union Hybrid Mission in Darfur) after few months.[41] Also, it persuaded Sudan to agree to the Resolution 1706, through bilateral dialogue. However, prior to adoption of Resolution 1706, China reiterated its confirmation of R2P by giving vote in favour of Resolution 1674[42] which reaffirmed R2P for protection of civilians in conflict situation. However, only after one month of passing Resolution 1674, China expressed its viewpoint, at a UNSC Meeting on R2P by stating that R2P under 2005 Summit Document is different from the basic notion of R2P, thereby referring to it as a complex concept.[43] Again in December 2006, China maintained that the notion of R2P should neither be interpreted beyond the limits of Outcome Document of 2005 nor be implemented by misinterpreting or misusing the concept.[44]

In 2007, China's apprehension towards R2P was observed to be increased as it asserted that the Council should avoid implementation of R2P owing to varying interpretations of the same by the states.[45] It also reiterated its stance on misapplication of the Principle and insisted on the discussion over it in the General Assembly in order to gain more clarity and consensus on implementation of R2P.[46] At the same time, many other states agreed on invoking R2P for safeguarding the civilians. Chinese delegate made statement reasserting the principle of sovereignty as well as territorial integrity and observed that UN should not interfere without the consent of the host state even in case when such interference is most needed. China also consistently insisted that any discussions over interpretation of R2P should take place in General Assembly and UNSC should not exploit the principle as a primary forum.[47]

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[38]UNSC Report, Cross Cutting Report No.2 on Protectionof Civilians (14 Oct. 2008)

[39]Ibid

[40]Adopted on 31st August 2006

[41]Since Sudan did not agree with Resolution 1706, it continued to oppose the deployment of UNAMID and thwart the proper deployment of UNAMID

[42]Adopted on 28 April 2006

[43]Record of UN UNSC 5476th Meeting on 28 June 2006 as to Debate on Protection of Civilians

[44]Record of UN UNSC 5577th Meeting on 4 December 2006 as to Debate on Protection of Civilians

[45]Record of UN UNSC 5703th Meeting on 22 June 2007 as to Open Debate on Protection of Civilians

[46]Record of UN UNSC 5703th Meeting on 22 June 2007 as to Open Debate on Protection of Civilians

[47]Record of UN UNSC 5781st Meeting on 20 November 2007 as to Open Debate on Protection of Civilians; Record of UN UNSC 5898th Meeting on 27 May 2008 as to Open Debate on Protection of Civilians

When referring to the debates in UNSC on Protection of Civilians, China can be seen to be skeptical of the interpretation of R2P especially by the UNSC. But at the same time, it has repeatedly acknowledged the responsibility of a state under the Principle of R2P along with embracing the notion of R2P as specified under World Summit Outcome Document of 2005. Further, it has also emphasized the role of UN Bodies other than UNSC such as General Assembly, ECOSOC, Human Rights Council, UNDP, World Bank in protection of the civilian in conflict situation. Moreover, it highlighted the significant role which NGOs and other international and regional organizations can play in securing peace.[48] It has given prominence to the avoidance and alleviation of the crisis with the help of such organizations. China maintained that the UNSC Resolution 1674, which reaffirms the language of R2P used in the outcome Document of 2005, provides a legal structure for protection of civilians and the UNSC should act under that framework.[49]

It has been observed that China continues to lay more stress upon prevention and peace rebuilding as the two most important elements of R2P, as compared to the element of protection during crisis. China pointed out that prevention plays a major role in the matters of civilian security as it entails advance action before the conditions of civilian deteriorates leading to crisis.[50] In January 2009, China abstained from participating inUNSC meetings regarding renewal of mandates of UN Missions such as UNOCI (UN Mission in Côte d'Ivoire), UNAMA (UN Assistance Mission in Afghanistan), UNAMI (UN Assistance Mission for Iraq), etc. Further, in case of Sri Lankan crisis caused by a militant group named LTTE (Liberation Tigers of Tamil Eelam), China affirmed that it is entirely domestic affair of the state and that the UNSC should not intervene. China has been very cautious in matters of civilian security.[51] It has argued that the crisis should be resolved through peaceful ways with the help of regional and international organizations rather than only through the UNSC resolutions as UNSC should not be seen as a sole forum to resolve crisis for civilian security.

As an advocate of peaceful resolution of conflicts, China has been unwilling to refer any conflict for investigation to any international agency or to take recourse of sanctions in general. China also did not attend any meetings of UNSC's Informal Expert Group on Protection of Civilians, as it might lead to making such group equivalent to the Working Groups of Council, which are formal in nature.[52] China and Russia amongst the other permanent members of the UNSC are considered to be more cautious about the protection regime in general. China's skepticism towards protection is due to its reluctance to the growth of R2P through the precedence based on Resolutions of UNSC.[53] China argued that measures taken after the eruption of crisis is not at all pragmatic from the point of view of civilian security as it would not be as effective in halting the already ongoing massacre.[54] It insisted

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[48]Record of UN UNSC 5898th Meeting on 27 May 2008 as to Open Debate on Protection of Civilians

[49]Ibid

[50]UNSC Report (Cross Cutting Report No. 4: Protection of Civilians in Armed Conflict (30th Oct. 2009)

[51]Ibid

[52]UNSC Report (Cross Cutting Report No. 3: Protection of Civilians in Armed Conflict (29th Oct. 2010)

[53]UNSC Report (Monthly Forecast: Protection of Women and Children in Situation of Armed Conflict) (Feb 2011)

[54]Record of UN UNSC 5577th Meeting on 4 December 2006 as to Debate on Protection of Civilians

that prevention as well as potent reconciliation is the key to civilian security as it occasions conditions conducive for civilians.[55] Moreover, it believes that since prevention leads to civilian security which ultimately leads to their protection in the future by avoiding any kind of conflict, international community should make more efforts to boost the preventive measures which also consists peace building measures.[56] Thus, it can be said that China's vehement support of preventive measures to resolve crisis with the help of regional and international organizations or bodies has, in a way, put R2P in action.

4. Conclusion

The unanimous adoption of R2P at the UN world Summit in 2005 gave hope for the reformation of humanitarian condition worldwide. Since the principle subscribe to the idea of modern sovereignty by acknowledging the primary responsibility of the concerned state to resolve the humanitarian crisis within its territory, many states approved the doctrine with the mindset that it would not interfere with their sovereign authority. The policy of non-interference with the sovereign authority of a state under R2P is a corollary to the aspect of giving prime responsibility to the concerned state to resolve the crisis under R2P. However, it is not absolute but depends upon the response of the concerned state to the crisis. In case of failure or inability of the state to respond, the other two aspects of R2P comes into play, viz. the responsibility to assist the host state to restore peace and responsibility of the international community to take up peaceful measures or otherwise to protect the security of the civilians of the host state in grave situation. In view of the above, there is dilemma as to whether states have accepted the R2P norm in its totality or is confined only to the single aspect of giving prime responsibility to the host. For instance, China, as member of the UNSC, endorsed the principle at 2005 summit but failed to implement the essence of the principle.

China along with the other four permanent members of UNSC, seen as guardian of peace by virtue of UN Charter, are responsible for the maintenance of international peace and security. But as a survivor of colonialism, China has remained skeptical of the international norms advocated by its former colonist states. It has constantly advocated for the territorial integrity and principle of sovereignty under international law. Thus, when it comes to China's foreign policy, it is apparent that the policy is tilted more towards the non-intervention narrative and territorial integrity rather than the other way around.

As far as the humanitarian crisis in other countries is concerned, there is no uniformity in the response of China, although it has consistently advocated for non-intervention and prevention of crisis before it culminates into a case for humanitarian intervention. China has time and again reiterated its commitment to R2P, which is strictly limited to the grounds upheld in the World Summit i.e. crimes against humanity, genocide, war crimes and ethnic cleansing. But even in cases where the said grounds were evident and reported by the international organizations, China has been reluctant to take any significant steps. For instance, in case of Myanmar crisis, which according to Human

[55] Supra note 54

[56] Record of UN UNSC 5781st Meeting on 20 November 2007 as to Open Debate on Protection of Civilians

Right Watch Report involved ethnic cleansing and genocide, China wasnot only reluctant to take any significant steps to resolve the crisis but it also vetoed a UNSC Resolution addressing the humanitarian crisis in Myanmar. However, in case of African Countries, China had participated and encouraged resolution of crisis through intervention. Further, in case of Syrian crisis, China vetoed many Resolutions of UNSC which resulted in the escalation of crisis for several years as well as grave human rights violations to massive population. China had advocated for peaceful resolution of heart wrenching cases of humanitarian crisis like Myanmar and Syria even though it fulfilled the prescribed criteria for intervention and when the peaceful methods have been futile. It is very confusing as to why China has been adopting different approaches for different regions. Some scholars have argued that since China wants to economically establish itself in African region, therefore, it showed more interest there. Further, in cases of human rights violations in the mainland China and its autonomous region, China has been adopting its strict policy of non-interference in its internal matters even though there have been reports of many violations of human rights and restrictions on fundamental freedoms of the citizens there. However, in case of Uyghurs Muslims Concentration Camps, China allowed the entry of diplomats and UN representatives for inspection of the situation. But many had not only accused China of controlling the visit of those envoys but also pre-planned the inspection according to its strict policy for hiding the true picture of the condition of detainees in the camps.[57]

China has been seen making constructive statement (as opposed to its previous stand) in relation to respect for human rights and significance of its protection but in practice it has not been that active as it claims on paper. However, it has come far from what it used to be when it was a staunch supporter of traditional idea of sovereignty. China has also made its due effort for the peaceful resolution of the crisis through good offices but it had on several occasions failed to understand the seriousness of the crisis on case to case basis leading to serious hardships to many. Further, China will also send a meaningful message to other states by addressing serious human rights violations in Tibet Autonomous Region, Hong-Kong, Xinjiang (towards the Uyghurs).

The respect for R2P and its proper implementation covering all three aspects or pillars of R2P will go a long way in not only in the protection of gross violence of human rights within a state but also prevention of such violence, which will enhance the maintenance of international peace and security. Consensus among the states, more particularly the permanent members of UNSC, on the rational application of R2P, sidelining individual member's vested interests, at least in those circumstances where war crimes, crimes against humanity, ethnic cleansing or genocide are reported with credible facts, is the need of the hour.

[57]Human Rights Watch, World Report 2020 "China: Events of 2019" (available at https://www.hrw.org/world-report/2020/country-chapters/china-and-tibet)

THE BIO-POLITICS OF CORONA-VIRUS & HOW IT HAS ALTERED NIGERIAN TRADITIONAL CULTURAL VALUES (NTCV)

Ganiat Mobolaji Olatokun (Ph.d)*

Abstract

The idea of biopolitics formulated by Michel Foucault is a very important innovation on how changes can take place concerning the ways power and coercion are exercised. This has become visible in the relationship which has occurred between nation states and the biological element of human life, which leaves the states with no option than to begin to exercise the management of spheres of social life, like an attempt to guarantee the health of the population. Faced with coronavirus, This work intends to align with the argument posed by Agamben suggesting that our society no longer believes in anything, but naked life. People are prepared to sacrifice anything as long as they don't fall sick.

Key words-
Biopolitics, Coronavirus, Culture, Family, Tradition, Value.

1. INTRODUCTION

The idea of biopolitics as formulated by Michel Foucault is a very important contribution to our understanding of changes that may occur regarding ways whereby power and coercion are exercised. Biopolitics has become a key concept in critical discourses of security governance. This can be seen in the new relationship which has occurred between nation states and the biological element of human life, which leaves the states with no option than to begin to exercise the management of spheres of social life, like an attempt to guarantee the health of the population. Biopolitics can be considered and regarded as an oxymoron, that is, a combination of two terms.[1] It has been imagined that politics in the classical sense is about common action and decision making and is exactly what transcends the necessities of bodily experience and biological facts and opens up the realm of freedom and human interaction. Hence, biopolitics can be said to

*Associate Professor and head of department, Private and Property law, Faculty of Law, University of Ilorin. Kwara State.Nigeria.kazgan2000@yahoo.com

[1]Biopolitics carries multiple meanings. Laurette T. Liesen& Mary B. Walsh, *The Competing Meanings of "Biopolitics" in Political Science: Biological and Postmodern Approaches to Politics,* 31POLITICS & THE LIFE SCIENCES. 2, 5-7(2012).

denote a politics that essentially deals with life.[2] Biopolitics has a strong bound to rational decision making and democratic organization of social life.[3]

Biopolitics can be imagined to be a result of contemporary biotechnological innovations[4] marking the beginning of a new era, like that of the current coronavirus pandemic, which is a deadly respiratory virus. In this new era, biopolitics aims at the administration and regulation of life processes on the level of population.[5] Faced with coronavirus, Nigeria, like most nations of the world have exercised population control in order to curtail its spread. This has led to an expansion of all forms of state intervention and control such as, state lockdowns, social distancing, and so on. The nature of the population, for instance, birth rate, death rate[6] and even disease is capable of being influenced by specific measures in order to see to its effective management and control.[7] In this way therefore, the nature of the population in relation to this article is the coronavirus disease as well as its increasing death rate which has the tendency of being influenced by measures for its management and curtailment leading to the biopolitics of coronavirus in Nigeria.[8]

Through the biopolitics of coronavirus in Nigeria, it has become possible to define norms, establish standards and determine average values. It has also become possible, through this process to govern individuals by practices of correction, exclusion, normalization, discipline, therapeutics and optimization.[9]

Hence, the Nigerian government, through biopolitiking, in order to curtail the spread of coronavirus which has spread through the nooks and crannies of the country had put in place several measures in order to manage the lives of the population. These measures includes; restriction of movements, both inter and infra state, avoidance of mass gatherings, be it religious, social or ceremonial, shutting down of all schools and markets, closure of boarders, social distancing and also, the work from home order to those in the working class. The overall interpretation of all these measures in Nigeria is

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[2]THOMAS LEMKE, BIOPOLITICS: AN ADVANCED INTRODUCTION 9-14(New York University Press 2011). Biopolitics is the political power that has taken over the care of biological life. Dario Padovan, Biopolitics and Social Control of the Multitude,9 DEMOCRACY & NATURE. 473, 473-478(2003).

[3]Thomas Lemke, From State Biology to the Government of Life: Historical Dimensions and Contemporary Perspectives of "Biopolitics", 10 JOURNAL OF CLASSICAL SOCIOLOGY. 421, 421-423(2010).

[4]Eva Slesingerova, Biopower Imagined: Biotechnological Art and Life Engineering,5791SOCIAL SCIENCE INFORMATION. 59, 59-65(2018).

[5]Biopolitics intervenes at the level of population. Michael Laurence, Biopolitics and the State Regulation of Human Life, OXFORD BIBLIOGRAPHIES (2016). https://www.oxfordbibliographies.com/view/document/obo-9780199756223/obo-9780199756223-0170.xml.

[6]Laurence, Supra note 5.

[7]Different modes of control, discipline and surveillance emerged aiming at producing disciplined and normal individuals. Danielle Guizzo& Lara Virgo de Lima, Foucault's Contributions for Understanding Power Relations in British Classical Political Economy, 16ECONOMIA194, 194-197 (2015).

[8]This is a kind of power that emerges much later according to Foucault, which care after the maintenance of life as well as the wellbeing of the population. Id. at 195-197.

[9]LEMKE, Supra note2.

that everyone should stay in their respective homes without interacting with anyone.[10]

All these attempts and measures regarding the biopolitics of coronavirus in Nigeria has affected immensely the Nigeria Traditional cultural Value (NTCV) system which is deeply rooted in customs as defined by traditional family roles.[11] Nigerians tend to be more relaxed about physical contact. People of the same gender will often touch each other on the arms or back whilst having conversation, and this is considered perfectly normal.[12]

However, with the coming of the biopolitics of coronavirus, the issue of social distancing has created a great barrier which most Nigerians are finding it difficult to adapt to, and according to Agamben, bare life and naked life has become the order of the day as long as people don't interact with one another. Other human beings are seen as potential contaminants to be avoided at all costs or, at least to keep a distance of at least one meter.[13] The naked life, brought by the agencies of coronavirus is against the Nigerian traditional cultural values.

This study discusses the effect which the biopolitics of coronavirus in Nigeria has had, and is having on the NTCV. The biopolitics of coronavirus having immediate and direct effect on the NTCV includes; nationwide lockdown, social distancing as well as the total ban on group gatherings be it religious or ceremonial. The result shows that in the event of a very prolonged biopolitics of coronavirus in Nigeria, which is very imminent, the entire structure making up the NTCV will be completely eroded. Many Nigerians would have become adapted to the ways and manners brought about by the biopolitics of coronavirus. Thus, according to this study might have a significant effect on how we relate as a people within the society.

Consequently, this study is divided into seven parts comprising; the introduction, the coronavirus disease, what is meant by biopolitics, the part dealing with the actual biopolitics of coronavirus in Nigeria, then the section relating to the Nigerian traditional family values, another caption regarding the evaluation of the effect of biopolitics of coronavirus on the Nigerian traditional cultural values, and lastly, the conclusion and recommendation aspect.

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[10]In an effort to curtail the spread of the coronavirus, the federal government of Nigeria has consistently, since 23 March 2020, impose several lockdowns on Abuja, Lagos and Ogun States. Other states' governors has followed suit locking down their various states and maintain the stay home order. TofeAyeni, Coronavirus: Nigeria's varied Responses to Controlling Covid-19, THE AFRICAN REPORT, May 10, 2020,(July. 14, 2020, 10:47 AM) https://www.theafricareport.com/27773/coronavirus-nigerias-varied-responses-to-controlling-covid-19/.

[11]Values are rooted in the family as the basic institution and primary agent of socialization. OlayinkaAkanle&Olanrewaju A. Olutayo, Modernity, McDonaldisation and Family Values in Nigeria,5 THE NIGERIAN JOURNAL OF SOCIOLOGY AND ANTHROPOLOGY45, 45-48 (2007).

[12]*A Guide to Nigeria- Etiquette, Customs and Culture,* (July. 14, 2020, 12:00 PM) https://www.kwintessential.co.uk/ resources/guide-to-nigeria-etiquette-customs-culture-business

[13]Gordon Hull, Why we are not Bare Life: What's Wrong with Agamben Thoughts on Coronavirus, (March. 23, 2020, 3:20 PM)https://www.newappsblog.com/2020/03/why-we-are-not-bare-life-whats-wrong-with-agambens-thoughts-on-coronavirus.html.

II. CORONAVIRUS (COVID-19)

Coronaviruses are group of related RNA viruses that causes diseases in mammals and birds. In humans, these viruses causes respiratory tract infections that can range from mild to lethal. Mild illnesses include some cases of common cold (which is also caused by other viruses, especially, rhinoviruses), while more lethal varieties can causes SARS, MERS and COVID-19.[14]

Coronaviruses vary significantly in risk factor. Some can kill more than 30% of those infected, such as MERS-COV, and some are relatively harmless such as common cold.[15] Transmission of respiratory infectious disease like COVID-19 can occur as a result of the presence of pathogens in the expiratory droplets which are large enough to settle around infected individuals. This was the views of Carl Flugge in 1887.[16]

These droplets, which has been classified into large and small by William F. Wells in the 1930s, are capable of being emitted upon exhalation. Consequently, these droplets mediates transmission of respiratory diseases. Recently, it has been discovered that exhalations, sneezes and coughs consists of mucosalivary droplets which are primarily made of a multiphase turbulent gas cloud that entrains ambient airs and traps carriers within it clusters of droplets.[17] These droplets can contaminate surfaces, while the rest remain trapped and clustered in the moving cloud. Eventually, the cloud and its droplet pay load lose momentum and coherence, and the remaining droplet within the cloud evaporate, producing residue droplet that may stay suspended in the air for hours.[18]

In order, therefore, to minimize the risk for disease transmission, the latest World Health Organization (WHO) recommendations for COVID-19 is that healthcare personnel and other staff are advised to maintain a 3-foot (1-m) distance away from anyone showing symptoms of the disease such as coughing and sneezing.[19] The Centre for Disease Control and Prevention recommended a 6-foot (2 arms length) separation.[20]

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[14]Qun Li et al, Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia, N. ENGL J MED.(Jan. 29, 2020, 10: 30 AM) Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia | NEJM.

[15]Anthony R. Fehr &Stanley Perlman, Coronaviruses: an Overview of their Replication and Pathogenesis, RESEARCHGATE. 1, 12 (2015). (10) (PDF) Coronaviruses: An Overview of Their Replication and Pathogenesis (researchgate.net)

[16]Yuguo Li, Basic Route of Transmission of Respiratory Pathogens- A New Proposal for Transmission Categorization based on Respiratory Spray, Inhalation and Touch, 31 PMC. 3, 3-6 (2021).(Jan. 29, 2021) Basic routes of transmission of respiratory pathogens-A new proposal for transmission categorization based on respiratory spray, inhalation, and touch (nih.gov)

[17]Katherine Randall et al, How do we get here: What are Droplets and Aerosols and how far do they go? A Historical Perspective on the Transmission of Respiratory Infectious Diseases, (Apr. 15, 2021) https://ssrn.com/abstract=3829873

[18]Yuguo, Supra note 16.

[19]World Health Organization, COVID-19 Advice for the Public: Getting Vaccinated, (Jun. 22, 2021), COVID-19 Vaccines Advice (who.int)

[20]Centre for Disease Control and Prevention, How to Protect Yourself and Others, (Jun. 11, 2021), How to Protect Yourself & Others | CDC

The mode of transmission of this respiratory disease as highlighted above account for the rapid spread of the novel coronavirus disease.[21] Four months after its emergence was reported in Wuhan, China, the virus has blown its wings to over 210 countries of the world including Nigeria. It has infected well over 5 million people and has claimed more than 500,000 lives world over.[22]

This virus represents a unique global challenge due to its contagious and lethal nature. The contagiousness and deadliness of COVID-19 have necessitated drastic action and management to curtail its transmission especially in Nigeria where more than 170,000 people have been infected of the virus and over 2,000 deaths have been recorded as at July, 2021. The acts, management and control to halt the continuous transmission of the disease by the Nigerian government has resulted in the biopolitics of coronavirus in Nigeria.

III. WHAT IS BIOPOLITICS?

The very idea and notion of biopolitics as formulated by Michael Foucault, has been a very important contribution to our understanding of the changes that might occur as a result of passage to capitalist modernity, especially with regards to ways whereby power and coercion are exercised. From power as a right to life and death that is held by the sovereign, to power as an attempt to guarantee health, productivity and population. This has led to an expansion without precedent, of all forms of state intervention and control.[23]

Biopolitics can then be understood as a political rationality which takes the administration of life and population as its major concern in order to sustain such life as well as see that such life multiplies. Biopower is a way in which biopolitics is put to work in the society.[24] Michael Foucault saw Biopower as a series of events, from theoretical ones to concrete practices, which formed the basis of a new relationship between nation states and their biological elements of human life.[25] Thus, Biopower is a descriptive

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[21]Lydia Bourouiba, Turbulent Gas Clouds and Respiratory Pathogen Emissions Potential Implications for Reducing Transmission of COVID-19, 323JAMAINSIGHTS (Mar. 26, 2020) Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing Transmission of COVID-19 | Infectious Diseases | JAMA | JAMA Network

[22]Chris G. Sibley et al, Effect of the COVID-19 Pandemic and Nationwide Lockdown on Trust Attitude towards Government and Wellbeing, AMERICAN PSYCHOLOGICAL ASSOCIATION (2020) https://www.apa.org/pubs/journals/releases/amp_amp0000662.pdf . As July 2021, coronavirus cases has gone up to 193,007,589. The total number of deaths as a result of coronavirus has reached a total of 4,146,092 as at July, 2021. https://www.worldometers.info/coronavirus/

[23]Biopolitics denotes social and political power over life. It is also the power of a state over individuals. Social and political power can be used to structure and control human life through biopolitics. Liesen&Walsh,Supra note 1.

[24]Rachal Adams, Michel Foucault: Biopolitics and BiopowerCritical Legal Thinking, (May. 10, 2017) https://criticallegalthinking,com/2017/05/10/michel-foucault-biopolitics-biopower/

[25]The power over life by the sovereign is Biopower. GardarArnason, Biopower (Foucault) in DAN CALLAHAN & PETER SINGER (Eds) ENCYCLOPEDIA OF APPLIED ETHICS295-99 (2d ed. 2012).

index of the moment when state began to exercise the management of spheres of social life.[26]

In the works of "Society must be Defended"[27] and "History of Sexuality"[28] , Foucault introduces the concept of Biopower, which according to him is critical for the development of capitalism, which helped to ensure the controlled inclusion of the bodies in the production apparatus and adjust the phenomena of the population. Biopower is a technique of rationalization and strict economy of power that must be exercised in the whole system of surveillance.[29]

Faced with the novel coronavirus (COVID-19) pandemic, majority of nation states have continued to exercise strong sanitary surveillance and population control in order to prevent as well as curtail the spread of the disease. Actions are being taken worldwide to prevent greater death toll associated with the coronavirus disease. Such measures put in place by nation states places us in the domain of Michael Foucault's conceived population management techniques which is focused on how to better the condition of living forces.[30]

The policy responses suggests that these living forces are weak and are in need of protection, both from others and from themselves. Consequently, governments world over have been forced to seize power in the name and under the guise of biopolitics in order to lead the war on the coronavirus, seeking to reinvigorate central authority and to nationalize and unite the societies in the collective struggle for security.[31] The state of emergency that emerged today is one of population management on a territorial grid seen from above and led by the power of experts.[32] This is exactly what is being witnessed today with each country around the world adapting to similar forms of biopolitics.

IV. BIOPOLITICS OF CORONAVIRUS (COVID-19) IN NIGERIA

Foucault has called our attention to how power has been able to act on the body, how

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[26]The concept of Biopower marks the moment power begins to invest in life. Pedro P. Gomes Pereira, In and around Life. Biopolitics in the Topics, 10 VIBRANT: VIRTUAL BRAZILIAN ANTHROPOLOGY(2013) https://www.scielo.br/scielo.php?pid=S1809-43412013000200001&script=sci_arttext&tlng=en

[27]Michael Foucault, Emdefesta da Sociedade: Curso no College de France (1975/1976). Sao Paulo: Martins Fontes. (Jul. 27, 2000) https://joaocamillopenna.files.wordpress.com/2018/05/foucault-michel-em-defesa-da-sociedade.pdf

[28]Michael Foucault, Historia da sexualidade I: a vontade de saber Rio de Janeiro:Graal; https://edisciplinas.usp.br/pluginfile.php/2940534/mod_resource/content/1/Hist%C3%B3ria-da-Sexualidade-1-A-Vontade-de-Saber.pdf

[29]Francisco R. Ferreira et al, Biopower and Biopolitics in the Field of Food and Nutrition, 28REVISTA DE NUTRI CAO(2015) https://www.scielo.br/scielo.php?pid=S1415-52732015000100109&script=sci_arttext

[30]Clare O'Farrell, Biopolitics and Coronavirus, or don't forget Foucault, FOUCAULT NEWS (Mar.21, 2020)https://michel-foucault.com/2020/03/22/biopolitics-and-coronavirus-or-dont-forget-foucault-2020/

[31]Public health is an important element of national security. Menizibeya O. Welcome, The Nigerian Healthcare System: Need for Integrating Adequate Medical Intelligence and Surveillance Systems, 3JOURNAL OF PHARMACY AND BIOALLIED SCIENCES470, 470-478 (2011).

[32]David Chandler, The Coronavirus: Biopolitics of the rise of 'Anthropocene Authoritarianism' 18RUSSIA IN GLOBAL AFFAIRS(Apr-Jun. 2020) https://eng.globalaffairs.ru/articles/coronavirus-authoritarianism/

inner motives are becoming knowable and how supervision study and surveillance has been able to shape subjectivity. Biopolitics imposes self-control and uniformity, as well as seduces individuals to embrace social ideas that they may not ordinarily have embraced.[33]

Hence, the attitude of the Nigerian government in this era of covid-19 pandemic has showcase the level which any government can go all in an attempt at biopolitics. The current coronavirus disease (COVID-19) outbreak has demonstrated vividly the burden which respiratory disease can impose on an intimately connected society[34] like Nigeria. Consequently, an unprecedented containment and mitigation policies have been implemented by the government of Nigeria in the guise of biopolitics seeking to take charge of the life of Nigerians in the name of health and general wellbeing. The key aim and objective of such policies is to decrease the encounters between infected individuals as well as susceptible ones, so as to reduce and minimize the rate of transmission.[35]

The federal and state governments are taking proactive steps to curtail the spread of the novel coronavirus disease throughout the country. As the country experiences a steady increase in the number of confirmed cases,[36] most restrictions and lockdowns, in the name of biopolitics are being instituted to adequately respond to the pandemic.

On 29 March 2020, the president of the Federal Republic of Nigeria, Mohammadu Buhari, address the nation on the federal government's effort to curtail the spread of COVID-19 within the country. In his speech, he directed a cessation of all movements in Lagos, Ogun and the federal capital territory, Abuja for an initial period of 14 days.[37] There has however been several extension of cessations in these statessince the initial one.[38] Every other states in Nigeria soon follow the precedents laid down in Lagos, Ogun and Abuja.[39]

The federal and state governments in Nigeria has taken over the management of the

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[33]Amy Borovoy& Li Zhang, Between Biopolitical Governance and Care: Rethinking Health, Selfhood and Social Welfare in East Asia,36 JOURNAL OF MEDICAL ANTHROPOLOGY (Jan. 10, 2017) https://www.tandfonline.com/doi/full/10.1080/01459740.2016.1158178 (accessed 27 July 2020).

[34]Bourouiba, Supra note 21.

[35]Government's COVID-19 Response Measures, (Mar. 24, 2020). https://www.pwc.com/ng/en/covid-19/government-covid-19-response-measures.html

[36]Nigeria, unfortunately confirmed its first case on 27 February 2020. By the morning of 29 March 2020, the total number of confirmed cases stands at 97 and since then, the number of confirmed cases has continue to rise. AbiolaOdutola, President MuhammaduBuhari's Full Speech on COVID-19 Pandemic, NAIRAMETRICS (Mar. 30, 2020) https://nairametrics.com/2020/03/29/president-muhammadu-buharis-full-speech-on-covid-19-pandemic/

[37]Id

[38]Emmanuel A. Benson, President MuhammaduBuhar's Full Speech on Extended COVID-19 Lockdown,NAIRAMETRICS(Apr. 13, 2020)https://nairametrics.com/2020/04/13/president-muhammadu-buharis-full-speech-on-extended-covid-19-lockdown/

[39]Id

lives of the citizens and it appears biopolitics in the name of health is underway. This action is thought necessary in order to curtail the spread of coronavirus disease.[40] Several policies, both legal and regulatory are persistently being rolled out, all in a bid to ensure that the spread of the coronavirus is reduced to the barest minimum.[41]

The Lagos state governor via his powers under the State Health Law and the Federal Quarantine Act Q2 LFN 2004, issued the Lagos State Infectious Disease (Emergency Prevention) Regulation 2020. The regulation amongst others grant the governor power to restrict movement within, into or out of the state, particularly the movement of persons, vehicles, aircraft and water craft. The regulation, in addition, further grants the governor the power to restrict or prohibit the gathering of persons without the governor's consent, restrict the conduct of trade, business and commercial activities within the state and to order the closure of markets, except those selling or manufacturing essential services. Also, the regulation made provision for the temporary closure of public places like educational institutions and places of worship. It is instructive to note that all states of the federation has similar regulations in this time of COVID-19 pandemic.[42]

Another area where the Nigerian government has exercised some form of biopolitics is with regards to the issue of social distancing. Since clustering of people has been considered as an important phenomenon in the spread of the coronavirus, social distancing is therefore important for its control. The Centre for Disease Control and Prevention (CDC), describes social distancing as a set of methods for reducing frequency of closeness and contact between people in order to decrease the risk of transmission of the disease. However, in this time of coronavirus, a redefinition of social distancing has been formulated by the CDC to include; remaining out of congregate settings, avoid mass gatherings, and maintain distance of approximately six feet or two meters from others whenever possible.[43]

As part of the comprehensive response to the coronavirus pandemic, another act on the part of the Nigerian government to control the lives of the populace, and thus, an act of biopolitics, the president of the Federal Republic of Nigeria has announced the

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[40]The Federal Government of Nigeria COVID-19 Regulations, 2020, provides guidelines that put in place measures to curtail the effect of the COVID-19 pandemic on economic activities and livelihood in Nigeria.Oshoma A. Aduku, Curative Measures and Regulations by the Nigerian Government Amid COVID-19 Outbreak vis-à-vis the Fundamental Human Rights of its Citizens and Matters Arising Therein, SSRN ELECTRONIC JOURNAL (Apr. 2020) DOI: 10.2139/ssm.3571379 https://www.researchgate.net/publication/340505281_Curative_Measures_Regulations_by_the_Nigerian_Government_Amid_COVID-19_Outbreak_Vis_a_Vis_the_Fundamental_ Human_Rights_of_Its_Citizen_and_Matters_Arising_Therein

[41]Supra note 35.

[42]Many states have restricted airport and interstate travel to curtail the spread of COVID-19. Various states are under lockdown and are witnessing cessation of social and economic activities. CheluchiOnyemelukwe, The Law and Human Rights in Nigeria's Response to COVID-19 Pandemic, BILL OF HEALTH (Jun. 4, 2020)https://blog.petrieflom.law.harvard.edu/2020/06/04/the-law-and-human-rights-in-nigerias-response-to-the-covid-19-pandemic/ (

[43]Ebere R. Agusi et al, The COVID-19 Pandemic and Social Distancing in Nigeria: Ignorance or Defiance,35 PAN AFRICA MEDICAL JOURNAL. (May. 28, 2020) doi:10.11604/pamj.supp.2020.35.2.23649 https://www.panafrican-med-journal.com/content/series/35/2/52/full/

mandatory and compulsory wearing of face masks by anyone going out in public.[44] A similar policy is being implemented by all state governments in the country. The major rationale, according to the Nigerian Center for Disease and Control (NCDC), for the use of face mask is to prevent those who are infected but asymptomatic from spreading the virus.[45] In the name of securing health[46] for Nigerian citizens, the federal government even went a step further by setting out guidelines for prosecuting anyone in public without a face mask. This was announced by the secretary to the federal government, Boss Mustapha.[47]

An alarming sense of urgency and concern over the coronavirus pandemic at the national and international levels has thus, led to the proliferation of both medical as well as non-medical interventions into the daily lives of individuals and the population. We are faced with the biopolitical use of lifestyle to govern individual choices in order to secure the health of the population from the threat posed by the coronavirus pandemic.[48]

It is important to note that, the characterization of covid-19 as a threat to the society caused by the cumulative effect of individual lifestyles has led to the politicization of daily choices, habits and practices of the people. This has further resulted in the continued intervention witnessed today, into the lives of the generality of the populace by the government and its agencies. It is this interventions into the lives of Nigerians that has had a tremendous effect on the Nigerian traditional cultural values.

V. NIGERIAN TRADITIONAL CULTURAL VALUES (NTCV)

The very need and necessity to integrate cultural activities in all spheres of life has been greatly recognized in the post-independence development of Nigeria. The general ideas

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[44]President FRN, 2020. CoVID-19 Regulation 2020, The Quarantine Act,(Mar. 20, 2020,), http://covid19.ncdc.gov.ng/media/files/COVID-19; REGULATION_2020_20200330214102.pdf.

[45]Nigerian Center for Disease and Control, 2020. Advisory on the use of masks by members of the public without respiratory symptoms, (Jul. 21, 2021,), UseOfMasks_lBdgzHH.pdf (ncdc.gov.ng)

[46]Foucault considers and reconceived the mid-twentieth century as a state existing for the benefit of the individual in good health. Monica Greco, On Illness and Value: Biopolitics, Psychosomatics, Participating Bodies,45 BMJ JOURNALS.107, 110-111 (2019). https://mh.bmj.com/content/45/2/107

[47]OlufemiAtoyebi, FG to Prosecute People without Face Masks in Public,HEALTHWISE, PUNCH NP, May 1, 2020, at http://healthwise.punchng.com/fg-to-prosecute-people-without-masks-in-public

[48]CHRISTOPHER MAYERS, THE BIOPOLITICS OF LIFESTYLE: FOUCAULT, ETHICS AND HEALTH CHOICES(2015) Doi: 10.4324/9781315675503 https://www.researchgate.net/publication/ 298994028_ The_biopolitics_of_lifestyle_ Foucault_ethics_and_healthy_choices

regarding the Nigerian development has been strongly attached to authentic cultural values.[49]

In Sub-Saharan Africa like Nigeria, people and culture are inseparable since there is no denial of the fact that what makes up any society is its culture.[50] Linton[51] states that the culture of a society is the way of life of its members, the collection of ideals and habits which they learn, share and transmit from generation to generation. Culture, is designed for living held by members of a particular society.[52] It is a society-value system, which is all embracing and can be invoked to explain any person's or group's behavior.[53]

Cultural practices are shared perception of how people routinely behave in a culture, while cultural values are shared ideals of a culture.[54] Hence, cultural practices are intertwined within cultural values (emphasis mine). Values are to be understood as beliefs that are held about what is right and wrong and what is important in life. It is apt to state the centrality of the place of values in African culture as a heritage that is passed down from one generation to the other.[55]

Hence, the place of values in people's culture cannot be over emphasized. This is because, the value of a thing be it object or belief, is normally defined as its worth. A value can be seen as some kind of view or conviction which we can live with, live by, and even die for. This is the actual reason why value permeate every aspect of human life.[56] Hence, it is not surprising to see that every human person who grows up in a particular society is likely to become infused with the culture and values of that society whether knowingly or unknowingly[57] during the process of social interaction.[58]

Many activities of members of a particular society, like Nigeria, like eating, music, dancing, occupation, education, visiting friends and families, marriages, festivals, naming and burial ceremonies, entertainment of friends and guests, greetings are found within the confines of values which falls under non-material culture. All these values as

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[49]Adeyinka T. Ajayi, The Preservation and Conservation of Nigerian Cultural Heritage: An Impetus for her Development, 4THE SOCIAL SCIENCES.407, 407-409 (2009). http://www.medwelljournals.com/fulltext/?doi=sscience.2009.407.410

[50]Elias O. Wahab et al, Causes and Consequences of Rapid Erosion of Cultural Values in a Traditional African Society' JOURNAL OF ANTHROPOLOGY. (2012).https://www.hindawi.com/journals/janthro/2012/327061/

[51]Karl Thompson, An Introduction to Culture, Socialization and Social Norms, REVISE SOCIOLOGY. (Aug. 4, 2017,), https://revisesociology.com/2017/08/04/culture-social-norms-introduction/

[52]That's Africanity, Culture: The Meaning, Characteristics, and Functions, https:// www.yourarticlelibrary.com/culture/-the-meaning-characteristics-and-functions/9577

[53]Michael W. Morris, Values as the Essence of Culture: Foundation or Fallacy45JOURNAL OF CROSS-CULTURAL PSYCHOLOGY. 14, 14-18(2014).

[54]Michael. Frese, Cultural Practices, Norms and Values,46JOURNAL OF CROSS-CULTURAL PSYCHOLOGY(2015)https:// www.researchgate.net/publication/283895506_Cultural_Practices_Norms_and_Values

[55]Gabriel E. Idang, African Culture and Values16PHRONIMON(2015) http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1561-40182015000200006

[56]Id.

[57]Id.

[58]The acquisition of culture is a result of the socialization process. College of Early Childhood Educators, Practice Guidelines, (Oct. 2020,), https://www.college-ece.ca/en/Documents/Practice_Diversity_Culture.pdf

stated above are held in very high esteem in Nigeria and can be categorized as follows;[59]

A. SOCIAL VALUES:

In Nigeria, these social values are beliefs practiced either routinely or occasionally. Under this caption, we have festivals, games, sports and dances. These activities are carried out in Nigeria because they are seen as necessary. In Nigeria, it might not be very easy to separate social values from religious and moral values. That is why we see that in Nigeria, festivals have some religious undertones. It is not uncommon in Nigeria to see traditional and religious carnivals that will bring several people together in happiness.[60] Socially in Nigeria, greetings are of utmost importance.[61] A handshake, hug and a long list of well wishes for a counterpart's family are expected whenever a meeting takes place.[62] It is considered rude not to engage in proper greetings before getting down to business. Familiarization, socialization as well as visiting one another is also an important component of Nigerian social values.[63]

B. RELIGIOUS VALUES:

Religion is an institutionalized system of symbols, beliefs, values and practices focused on questions of ultimate being. Hence, the Nigerian religious norms and values are not human interventions or products of the society, but the fruit of religion. They exist as a result of the sanctions and demands of God. Thus, the Nigerian religious values are essential components of our socio-cultural system. This suggests that values are found in every religion.[64] Hence, religion in Nigeria seems to be the focal point around which every activity revolves.[65] Both Moslems and Christians in Nigeriathat are devoted to their religion hold in very high esteem the attendance of mosque and church in congregation in order to seek favors, blessings, forgiveness, and so on, from their God and Savior.

Regardless of religion, Nigerians bury their dead.[66] This is customary among Moslems and Christians. The size of the funerals, especially for the Christians, depends on the social status of the deceased.[67] The family is expected to set aside huge sum of money that will be used to ensure a proper befitting and elaborate funeral. The Moslem funeral rites are less elaborate as the deceased is committed to the mother earth after a very brief

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[59]Michael Ushe, Role of Traditional African Moral Values in the Development of Nigeria,3JOURNAL OF SOCIOLOGY, PSYCHOLOGY AND ANTHROPOLOGY.1, 1-4 (2011).

[60]Idang, Supra note 55.

[61]Mathias Bentina&Blessing Onyima, Salutation and Health in Nigerian Traditional Society: A Study of Selected Communities in the South East Region, 11 OGIRISI: A NEW JOURNAL OF AFRICAN STUDIES.65, 65-70 (2015).

[62]Culture of Nigeria, https://www.everyculture.com/Ma-Ni/Nigeria.html

[63]Id.

[64]Faith N. Okobia et al, Reactivating Nigerian Norms and Values through Religious Studies for National Transformation, 12 OGIRISI: A NEW JOURNAL OF AFRICAN STUDIES. 151, 151-156 (2016). www.ajol.info>index.php>article>view (accessed 5 August 2020).

[65]Idang, Supra note 55.

[66]Maurice O. Izunwa, Customary Right to Befitting Burial: A Jurisprudential Appraisal of Four Nigerian Cultures,12OGIRISI: A NEW JOURNAL OF AFRICAN STUDIES.122, 122-125 (2016).

[67]Sam Awoyinfa, How the Rich Bury their Dead, (Nov. 2, 2008,), https://www.nairaland.com/190690/how-rich-bury-dead

prayer ceremony. In both religion however, a great number of sympathizers are expected to grace the funerals.[68]

C. POLITICAL VALUES:

Political institutions in Nigeria start with the traditional society which has the family at the top.[69] Each family has a family head, each village has a village head, and then the clan too, has a head.[70] These various heads are often surrounded with worthy individual identified as chiefs. The head and the chiefs are saddled with the responsibilities of running the affairs of the family and the traditional society in general. They meet together regularly, most times in the house of the head to discourse the general wellbeing of their subjects. Consultation and consensus are highly valued for they are seen as an outstanding feature of political decision making.[71] This is the political value which is held by the people which makes them accord respect to their political institutions and leaders.[72]

D. ECONOMIC VALUES:

Economic values of the traditional African society like Nigeria are marked by cooperation. The traditional economy which is mainly based on farming and fishing, was in a co-operative nature. Friends, families and relatives often come together to assist in doing farm or fishing work.[73] The traditional Nigerian societies are also well known as skilled craftsmen engaged in the production and trading of different kinds of goods.[74]

Having examined the various values which Nigerians are accustomed to, it appears pertinent to evaluate how these values have been affected by the biopolitics of coronavirus.

VI. EVALUATING THE EFFECT OF THE BIOPOLITICS OF CORONAVIRUS ON NIGERIAN TRADITIONAL CULTURAL VALUES

The Nigerian society, through its values, is a composite one, a blending of the divine, spiritual, human, animate and inanimate beings, which constantly interact with one another. Therefore, in whatever circumstances Nigerians finds themselves, the spirit of brotherhood and communalism often stimulate the patriotic response and disposition of one towards another.[75]

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[68]Ola: Focus on Family: Nigeria, http://olaireland.ie/index.php/news-events/news/focus-family-nigeria/

[69]The family is the primary unit of socio-political organization in Nigeria. Abayomi-AlliMayowa, Pre-Colonial Nigeria and the European's Fallacy,2REVIEW OF HISTORY AND POLITICAL SCIENCE. 17, 17-20(2014).

[70]Idang, Supra note 55.

[71]Sunday Awoniyi, African Cultural Values: the Past, Present and Future,17 JOURNAL OF SUSTAINABLE DEVELOPMENT IN AFRICA. 1, 1-5(2015).

[72]Idang, Supra note 55.

[73]Id.

[74]Kabiru I. Yankuzo, Impact of Globalization on the Traditional African Cultures,3JOURNAL OF EDUCATION AND SOCIAL RESEARCH. 42, 42-46(2013).

[75]Benson O. Igboin, Colonialism and African Cultural Values,3AFRICAN JOURNAL OF HISTORY AND CULTURE.96, 96-97(2011).

Furthermore, the value which the Nigerian society places on communalism is expressed at all times through the sharing of a common social life, commitment to the social or communal good of the entire society, appreciation of mutual obligations, caring for others, interdependence and solidarity. The claims of individuality is also recognized. However, the Nigerian culture encourages the avoidance of individuality that are in the extreme. This is seen as a potential destruction of the Nigerian cultural values.[76]

The biopolitics of coronavirus in Nigeria has however altered the above status quo, by introducing a significant change and alteration in the traditional cultural values of Nigerians. This change is a complete departure from what existed before and Nigerians are finding it very difficult to adapt to this changes. The main reason being that, it is a change which calls for a complete replacement and total abandonment of a pre-established and originally preferred mode.[77]

The traditional cultural values in Nigeria is all about communalism and togetherness as expressed in the sharing of a common social life, commitment to the social or common good of the community, appreciation of mutual obligation, caring for others, interdependence and solidarity. The claims of individuality is also recognized. However, Nigerian ethics urges the avoidance of extreme individualism, which is seen as potentially destructive of human values.[78] With the biopolitics of coronavirus in Nigeria, the reverse seems to be the case now, as individualism is being preached and encouraged.

The Nigerian society is a composite one, a blending of the divine, spiritual, human, animate and inanimate beings, which constantly interact with one another. Therefore, in whatever circumstance, the spirit of brotherhood in Nigeria stimulate patriotic response and disposition of one towards another. However, with the biopolitics of coronavirus in Nigeria, all the traditional cultural values in Nigeria that binds Nigeria together are no longer in vogue.

Even with the ease of the lockdown in Nigeria, people are very skeptical about coming closer to one another. Families and friends prefer to distance away from themselves, and they find it most convenient to be on phone conversations instead of seeing face to face. The fear being harbored by various individuals, which is caused by the biopolitics of coronavirus leaves more to be desired. In Nigeria, people are afraid of one another. This is contrary to what is being preached by the Nigerian traditional cultural values.

Culture provides a blueprint or map for relating with one another.[79] It is this blueprint and map that is being eroded by the biopolitics of coronavirus which is preventing Nigerians from associating with one another leading to the naked life syndrome as propagated by Agamben.[80] The Nigerian culture is hinged on the wellbeing of a man as always dependent on his fellow men.[81]

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[76]Awoniyi, Supra note 71

[77]Idang, Supra note 55.

[78]Awoniyi, Supra note 71

[79]Elias O. Wahab et al Supranote 50.

[80]Hull, Supra note 13.

[81]KwameGyekye, African Ethics,(Sept. 9. 2010,), http://plato.stanford.edu/enteries/african-thics/

If as Taylor asserts, culture is that complex whole which includes knowledge, beliefs, arts, morals, customs, laws, values and other capabilities which are learned, shared by man as members of society and transmitted from one generation to another, any laxity, lassitude and levity exhibited by its custodians would result in rapid erosion and disappearance of the uniqueness of the people and their culture.[82]

VII. CONCLUSION AND RECOMMENDATION

The biopolitics of coronavirus in Nigeria has taken over the age-long cherished traditional cultural values. This biopolitics has succeeded in spreading new forms of values to the nooks and crannies of Nigeria.The result is the systematic erosion of the Nigerian traditional cultural values. The Nigerian society is gradually moving towards a situation of rugged individualism, where the traditional cultural values will be destroyed completely. The fear being envisaged by this work is linked with the duration which the pandemic will take. No one is sure how long or how soon, suggesting that, the Nigerian traditional cultural values might have been damaged beyond repairs if the coronavirus pandemic persists for so long. It is envisaged that everyone in Nigeria, both the government and the governed are stakeholders in ensuring that the Nigerian traditional cultural values are not eroded.

Hence, it is recommended that every one in Nigeria must ensure that they maintain good relationship with one another within the confines of the biopolitics of coronavirus. This is suggestive of the fact that the traditional cultural values in Nigeria can still be sustained if Nigerians intends to uphold its tenents by sticking to brotherliness and communalism even in this pandemic times. Nigerians are advised to maintain close family and friendly ties by constant phone calls and visits while maintain social distance and using facial masks. Ceremonies can still be done by strictly adhering to the social distancing measures as well as the use of facial mask in public. This relationships created during the time of biopolitics of coronavirus will create a background and foundation to fall back on when everything comes back to normal, at the time the pandemic comes to an end.

[82] Elias O. Wahab et al Supranote 50.

LIABILITY ARISING IN CASE OF MALFUNCTION OF ARTIFICIALLY INTELLIGENT DEVICES UNDER INDIAN LEGAL FRAMEWORK

Dr. Shampa Dev*
Dr. Avishek Chakraborty**

Abstract

This paper surveys all Indian laws to explore which laws would apply in cases of AI's malfunction. It suggests the application of consumer protection laws to deal with product defects, user responsibility in case of faulty handling, and information technology laws in malware or virus attacks. Criminal laws would apply where it is used as a tool to perpetrate a crime and in a factory environment the relevant laws to deal with accidents resulting due to machine malfunction, faulty handling or negligence.

Key words-
Artificial Intelligence Devices, Legal Personhood, Rights and Liabilities

1. INTRODUCTION

The fourth Industrial Revolution has taken the world by a storm. Technology has pervaded all spheres of life. There has been exponential growth and innovation in the field of robotics, Internet of things, genetics etc. so much so that the distinctions between the real and the virtual seem blurred. Artificial Intelligence.[1](AI) provides control to several systems within the tools we manage. It offers many features such as medical and legal assistance, entertainment, news, translation and interpretation etc. Almost all of these acts include the use of higher order cognitive skills and decision-making. Machines with the ability to execute cognitive tasks like learning, thinking and perceiving to achieve decision making and problem solving are referred as Artificial Intelligence. These tasks that are generally performed by humans are now being done by AI enabled products.

The technology of AI involves machine learning, deep learning, cognitive computing, neural networks, natural language processing, voice, image and speech recognition. The AI industry comprises of three domains, AI enablers, AI Platforms and AI services and products. AI Products range from autonomous cars, AI speakers like Alexa, LG Smart, digital voice assistants like Siri, natural language process-based voice query,

*Professor, School of Law, CHRIST (Deemed to be University) shampa.dev@christuniversity.in

**Assistant Professor, School of Law, CHRIST (Deemed to be University) avishek.chakraborty@christuniversity.in

[1]National Strategy for Artificial Intelligence in June 2018.

computer vision applied to photos, voice commanded speaker systems, facial verification software, predictions on preferences enabling target advertising. AI Services include monitoring and adapting learning patterns of students thereby improving learning, interpretative services like the 'GenieTalk', AI enabled X ray imaging and diagnosis, mobile wellness apps, AI in the legal sector - Bubby the chatbot that provides information on laws relating to real estate, lease, layoff and inheritance etc. Such AI enabled technologies have been used in transport, defence and security, hotel and tourism, manufacturing, education, healthcare and employment sectors.

Recently a chatbot, named Sophia, was manufactured at Hanson Robotics, Hong Kong. It uses visual data processing, speech to text technology, facial recognition and artificial intelligence to effectively communicate with humans. In the process it imitates human gestures and facial expressions. This humanoid robot is especially designed to be a suitable companion for elderly people. Saudi Arabia granted citizenship to Sophia and the United Nations Development Programme named Sophia as the Innovation Champion for Asia and Pacific. As such, Sophia has been assigned the task of innovation for achieving the United Nation's Sustainable Development Goals.

Such developments further fueled discussions on personhood granting and deciding the liability of such programs allowed by AI. If AI enabled products were making decisions, then they should be held liable for the decisions. The point of contention is that since AI enabled devices have sufficient autonomy of decision-making, they are persons in their own right. Legal research has been agog with discussions around establishing and claiming personhood for AI enabled products. The arguments supporting grant of personhood have been refuted on the ground that AI's cannot be termed as legal persons since they cannot shoulder legal rights and responsibilities. This paper analyses the arguments raised for and against the grant of personhood to AI programmed products or devices as brought forth from various published research works. It establishes that personhood cannot be granted to AI enabled products. It also argues that the humanoid form of robots and their capacity to make emotive gestures; attacks at the emotions of humans and cloud the rationale behind grant of personhood.

In India, an Artificial Intelligence Task Force for economic transformation of India was set up by the Commerce and Industry Ministry under the Chairmanship of V Kamakoti. In its report[2] the Task Force identified ten domains wherein AI enabled products and services could help better governance. These are National Security, Manufacturing, Environment, Fintech, Agriculture, Technology for Differently Abled, Health, Retail and Customer Relationships, Education and Public Utility Services. NITI Aayog has released a discussion paper on National Strategy for Artificial Intelligence[3] on June 2018. The paper highlights the importance of using AI technologies to improve governance. India will definitely see a spurt in the use of AI in various fields. Apart from

[2]Department for Promotion of Industry and Internal Trade, Report of Task Force on Artificial Intelligence (March 2018), https://dipp.gov.in/sites/default/files/ Report_of_Task_Force_on_ArtificialIntelligence_20March2018_2.pdf last accessed February 2021.

[3]NITI Ayog, National Strategy for Artificial Intelligence, June 2018, http://niti.gov.in/writereaddata/files/document_publication/NationalStrategy-for-AI-Discussion-Paper.pdf, last accessed on April 2021.

the above-mentioned sectors AI has already permeated the individual arena through computers, mobile phones and various other electronic devices that are things of daily use. Hence the necessity of exploring the laws that would apply in case of any wrongs that arise out of the use of AI or any issue arising out of AI malfunction.

For the purposes of this research the author understands AI as that technology that uses machine learning to achieve cognitive tasks, as opposed to automation that merely does repetitive tasks.

VIII. PERSONHOOD

Legal Personhood is a subject of much debate to any student of Jurisprudence. Many jurists have offered definitions that lay down characteristics for the grant of legal personality. Primarily human beings are entities capable of holding rights and duties in the eyes of law. Thereby personality implies possession of the characteristics that are essential to humans, namely the ability to think, speak and choose. But law also concerns itself with organising rights and duties. There is an element of choice involved in both these aspects. A person chooses to enforce his right and compel the performance of a duty. The duty bearer chooses to do the duty or at times refrains from so doing. This is evident from the oft-repeated statement - that he ought to do his duty. Since there is an element of choice involved in the action of both the right holder and the duty bearer, personhood will inhere in any being that is capable of choice.

A. THE CAPACITY OF WILL AND FREE CHOICE

The German jurist Litelmana, believed "will" to be the foundation for grant of legal personality. "Personality is the legal capacity of will, the bodiliness of men for their personality a wholly irrelevant attribute".[4] How would the German jurist answer the issue of grant of personhood to AI's? The answer would depend on the answer to whether AI has a free will independent of the programmer? Where the AI is based on machine learning technology and deep learning, it is programmed to learn from its environment. It demonstrates some degree of autonomy, in learning on its own. That is surely a demonstration of will. But it will not do to refute, that this capacity of will is only on account of programming. So essentially it is the outcome of the will of the programmer that the AI learns and demonstrates a will of its own. Further it demonstrates the will in consonance with and in respect to the mission it is programmed for.

The Turing test[5] laid down to determine personhood, unfortunately does not measure the capacity of free will of an AI. Its purpose was only to identify and determine whether an AI device has the capability to exhibit intelligent behavior which is on par with human intelligence, so as to be indistinguishable from that of a human. Neither does the attributes of personhood laid down by Roger C. Schank,[6] help in determining the capacity of will. The following are the attributes laid down - (1) Communication, (2)

[4]FITZGERALD P J, SALMOND ON JURISPRUDENCE, 12th, Edition, Universal Law Publishing Co. 1970 at pg. 229.

[5]https://www.britannica.com/technology/Turing-test; the Turing Test was proposed by Alan Turing, an English mathematician to determine whether a computer can think.

[6]Schank, R.C., 1987. What is AI, anyway?. AI magazine, 8(4), pp.59-59.

Internal knowledge, (3) External knowledge, (4) Goal-driven behavior, and (5) Creativity. A close examination reveals that the component 'goal driven behavior' makes an inquiry into the element of will that is only restricted to the goal mentioned in the AI programme.

B. THE CAPACITY TO HOLD LEGAL RIGHTS AND DUTIES

Paton defines legal personality as a juristic device by which the law creates units and allocates rights and duties to them.[7] Gray also defines legal personality in terms of attributing rights and duties. Similarly, Salmond defines a 'person' as, "any being whom the law regards as capable of rights or duties. Any being that is so capable, is a person whether human being or not and no being that is not so capable is a person even though he be a man".[8] All these definitions however different have one thing in common - the measurement criteria is the capacity to hold rights and duties. Applying these criteria to measure whether personality is attributable to an AI, one may have to delve into instances of grant of personality to non-living entities.

There have been such conflicting instances of grant of personality that it seems that legal systems do not follow any strict determining factor. Such decisions turn out to be a simple matter of sheer chance and political unpredictability.[9] In case of corporations the underlying factor seems to be financial transparency, efficiency and accountability, in case of idols,[10] the underlying factor seems to be cultural considerations and financial transparency, in case of rivers[11] the urgency to protect the environment and the ecosystem, in case of birds[12] and animals[13] an underlying ethic of care and in case of humans reference is made to their dignity, will, capacity to reason, consciousness, intrinsic worth even in the face of absence of consciousness and so forth. Political decisions have remained inconsistent to say the least, there seems no case of rejecting personhood to AIs. A political system may choose to confer personhood. But the problem of apportionment of rights and duties remains. Since laws are made by men to regulate men, and since the jural relationships between men necessitate the capacity to execute them, the capacity to handle rights and legal responsibilities becomes the most important element of personhood.[14]

C. THE HUMANOID COMPONENT

Where most legal systems regard AI enabled products as mere tools or devices that are to be used responsibly by their owners; AI applications like Sophia have challenged this

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[7]PATON G W., 1972. A TEXTBOOK OF JURISPRUDENCE.

[8]FITZGERALD P J, SALMOND ON JURISPRUDENCE, 12th, Edition, Universal Law Publishing Co. 1970 at pg. 299

[9]Pagallo, U., 2018. Vital, Sophia, and Co.-The Quest for the Legal Personhood of Robots. Information, 9(9), p.230.

[10]Pramatha Nath Mullick v. Pradyumna Kumar Mullick (1925) LR 52 Ind App 245

[11]Mohd Salim v. State of Uttarakhand, Writ Petition (PIL) No.126 of 2014

[12]People for Animals v. Mohazzim and others2015 SCC OnLine Del 9508 held that birds have a fundamental right to fly.

[13]Nagaraja &othersv. Animal Welfare Board of India; see also Lavery and Stanley (2015) decisions where personhood was denied on the ground that animals are not capable of handling rights and duties.

[14]DIAS R W M, JURISPRUDENCE, 5th Edition, LexisNexis 2013 at pg. 251

traditional stance. It raises doubts on the credibility of abiding by the old interpretations of personhood and begs of a radical understanding and interpretation of reality. Should our present world notions dictate or limit the understanding and interpretation of the future world? Sophia demonstrates a capacity of cognition, thought and reasoning, has the capacity to befriend humans, (in fact it has been specifically designed to be favourable companions to the elderly) and can express emotions through facial gestures. It possesses the attributes identified by Schank.[15] Pagallo[16] asks - Do certain specimens of AI technology, such as smart humanoid robots, indicate that we should be ready to grant some of these robots full legal personhood and citizenship?

But it would be legally troublesome to hold AI liable for their actions. Their humanoid form and human-like behavior lead human minds to view them as their partners[17] and to pull their emotions, thus provoking an AI case for a personality status. It is easy to personify a robot in a humanoid form that appears to think and communicate. A number of popular science fiction[18] also asserts personhood of AI, thereby clouding further rational thought. Answering the problem is the suggestion to design AIs in such a manner that it only provokes reactions from the users that precisely mirrors the AIs' real moral status.[19]

Solum[20] asserts that it is a mere theoretical and a future question - whether AI can be a legal person? That human intelligence is computational and therefore in principle it can be modeled is the basic assumption of cognitive science.[21] Yet, Solum asserts three objections that stand in the way of granting constitutional rights to an AI at this stage. He extends the thesis that AIs are not Human,[22] The Missing-Something Argument[23]; and AIs ought to be Property.[24] Extending the 'missing something' argument Solum finds that AIs do not have souls, do not possess consciousness, have no intention, cannot have feelings, cannot possess interests and cannot possess free wills. But Solum does not rule out grant of personality to AI in the future. His objections to the grant of personhood are firstly the judgement objection[25]- that an AI cannot be trusted with judgements that humans can make particularly the ones of a moral or subjective nature. The second objection is the responsibility objection - that AI cannot handle legal rights and responsibilities.

Concluding thereby that even if our perception of the real and the virtual world seems to merge and blur, and even if there might be a possibility of a fully autonomous intelligent *Robosapien* exactly like a *Homosapien* in the future and though it may be the political decision of a legal system to grant it rights and duties, yet the fact remains that the AI's run-on programmes developed by humans and the programme can be tweaked to give the AI the autonomy that is desired. As long as that be true, AIs cannot be fully

[15]Supra footnote 8.

[16]Supra footnote 11.

[17]Beck, J.,Can A.I. Ever Have Free Will?https://becominghuman.ai/can-a-i-ever-have-free-will-c18b4f489b45, last accessed on March 2021.

[18]Most stories like I, Robot's V.I.K.I., Battlestar Galactica (and Caprica)'s cylons, Agents of S.H.I.E.L.D.'s LMD's, or the Terminator's Skynet, deal with artificial intelligence rebel against humans on account of how humans treat them.

autonomous nor can have a will independent of its maker, they cannot handle legal responsibilities and consequently cannot be granted legal personality.

IX. LIABILITY

Given the existing state-of-the-art, with respect to AI, if Indian Courts are called upon to decide on the grant of legal status of AI, it may well be contended that such an argument would fail, because as of date an AIs capacity to hold rights and legal responsibilities, is akin to that of a chimpanzee.

Independently viewed, AI's can better qualify to be automated products manufactured to execute those operations. AI programs are written and orchestrated by humans. If it attains autonomous capabilities, it is because it has been so programmed; and hence should be the liability of the human involved. Liability can be defined as a bond that connects the wrongdoer and the various remedies of the wrong. Liability is what results from a mischievous act from a legal standpoint. Law lays down rights and duties and ensures fulfillment of the same. Actions or omissions are wrongful when they cause harm. A man can only be held liable for his own actions.

A. ISSUES ARISING OUT OF USE OF AI ENABLED PROGRAMMES AND PRODUCTS

Sometimes, the AI may have design defects, manufacturing defects or may be coded incorrectly leading to failure in a product. In certain cases, the AI may behave in an unpredictable manner. The Special Task Force[26] had identified one legal challenge that is of ensuring data security, protection and privacy. Additionally, AI enabled products will eventually pervade many other aspects in the private sphere, like the hotel industry, music and entertainment, health and tourism, retail and even in the manufacturing sector. In the event of an AI being held to be a legal person, it will put a strain on the traditional concept of liability. If AI is not a legal person i.e. it is merely a tool in the hands of humans to accomplish various jobs, then the laws will have to be reinterpreted to accommodate such contemporary developments. This section of the paper explores the various laws that would apply in case of wrongs emanating from the use of AI. The span of liability in the determination of liability is depicted by the following matrix.

B. LIABILITY OF THE MANUFACTURER

The legal framework with respect to product liability attempts to reasonably balance innovation and technological development and the inevitable social costs. Problems

[19]Schwitzgebel, E. and Garza, M., 2015. A defense of the rights of artificial intelligences. Midwest studies in philosophy, 39(1), pp.98-119.

[20]Solum, L.B., 1991. Legal personhood for artificial intelligences. NCL Rev., 70, p.1231.

[21]For a more detailed reading, Friedenberg, J. and Silverman, G., 2011. Cognitive science: An introduction to the study of mind. Sage.

[22]Solum, L.B., 1991. Legal personhood for artificial intelligences. NCL Rev., 70, p.1232.

[23]Ibid at pg.1262.

[24]Ibid at pg.1276.

[25]Ibid at pg. 1278.

[26]Supra note 3.

that may arise out of AI enabled product and services may be broadly classified into - Manufacturing defects or Design defects. Recently there have been numerous incidents[27] resulting in personal injury that involved AI enabled product. Kingston[28] in his article discusses a few. It needs to be remembered that an AI enabled product and its functioning is different from the traditional engineering tool.

In the event of such events occurring in India the laws that would be called to handle will be as follows-

"Consumer Protection Act, 1986 -An AI enabled product is meant to be safe for consumers. In case the programme does not give desired consequences for which it is designed or there is an accident out of the use of it, a consumer case is likely to be instituted claiming defective good. The petitioner needs to prove product defect was the cause of the injury so that damage can be awarded. Suit would lie against the manufacturer/ programmer/ trader. The Act enables a consumer of any product or service to file a complaint in case of any unfair trade practice, restrictive trade practice, defect in goods, deficiency in service, sale of goods that are hazardous to life and safety or are in contravention of the standards laid down by the law with regard to the safety of such goods.

"Indian Contract Act, 1872 -A contract made for the sale or purchase goods enabled with AI or an AI enabled programme would be governed by the terms of contract and the warranty clause mentioned therein. Where an AI enabled programme is sold to a Bank, issues arising out of the compatibility of the programme with the software in use/ conformation to functional specifications/ software provider continues to maintain an information security process along with safeguards/ for a certain period of time/ that the programme will run and perform exactly as ordained. Warranty breaches under contractual obligation gives rise to the right to claim damages but not the right to repudiate or the right to reject the contract under the Indian Contract Act. Although, condition breaches not only give rise to the right to repudiate or right to reject the contract but also the right to claim damages.

"Fatal Accidents Act, 1855 - Section 1A provides for providing compensation to family members in cases where death is caused due to an actionable wrong. Under common law the vicarious liability is attached to the employer and he is held liable for the negligent act or omission of the employees in the course of employment.

"Factories Act, 1948 - Hallevey[29] cites the example of a Japanese employee, who was perceived as a threat by an AI robot working in a factory, which proceeded to crush him to death. Incidents like these may be common occurrence in the near future. The Act lays down the general duties of manufacturers[30] as regards to safety in usage of substances and other articles in factories

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[27]Accidents of autonomous cars of Tesla Inc. and Uber Technologies Inc.

[28]Kingston, J.K., 2016, December. Artificial intelligence and legal liability. In International Conference on Innovative Techniques and Applications of Artificial Intelligence (pp. 269-279). Springer, Cham.

[29]Hallevy, G., 2013. When robots kill: artificial intelligence under criminal law. UPNE

[30]Section 7B of the Factories Act, 1948 - "(1) Every person who designs, manufactures, imports or supplies any article for use in any factory shall - (a) ensure, so far as is reasonably practicable, that the article is so designed and constructed as to be safe and without risks to the health of the workers when properly used;....(5) Where a

C. LIABILITY OF A THIRD PERSON

In India, the Factories Act imposes general duties[31] on 'occupier' of a factory. Under the act the term "occupier" is defined as an occupier of a factory i.e., the person with whom the ultimate control of the affairs of the factory lies. Ensuring the health, safety and welfare of all the workers of the factory when they are present and working in the factory as far as practically possible is a legal duty of the occupier. This duty also extends to making various arrangements in the factory to avoid risks related to health issues that may be caused during the storage, handling, use and transport of various substances. If accidents occur due to malfunction, negligence or faulty handling of AI, the occupier would be held responsible.

The Information Technology Act, 2000 also lays down penalties for damage to computers, computer systems, tampering with source code etc.

D. LIABILITY OF THE PROGRAMMER

Criminal liability with respect to AI would lead to the enquiry of whether the harm has ensued as a result of some action of the AI. Since the actions of AI are governed by the programme it operates on and if external interference is ruled out, it leads to an inquiry into the mental attitude of the programmer. Criminal liability is generally depicted by the maxim -Actus non facit reum nisi mens sit rea. Criminal law represses acts that have harmful tendencies and therefore must be stifled by penal discipline. It believes that to render punishments would serve as an effective deterrence for the future. It is a matter for the criminal law to lay down the culpability. Generally, three types of wrongs are identified -

1. Intentional or Reckless wrongs depicted by the use of the words intentionally or recklessly.

2. Wrongs of negligence depicted by the use of the words negligently.

3. Wrongs of strict liability where mens rea is not required.

Having established that the AI is not a person and hence no liability or mens rea can be ascribed to it, the enquiry about liability essentially leads in the absence of external interference to the AI programmer. Hence in the first case, if the programmer has intentionally designed the programme for the advancement of a criminal act the liability would inevitably lie with the programmer. Consequently, if the AI enabled product is intentionally programmed to perform a criminal act or it is being used as a tool towards commission of an offence; the liability lies with the programmer.

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person designs, manufactures, imports or supplies an article on the basis of a written undertaking by the user of such article to take the steps specified in such undertaking to ensure, so far as is reasonably practicable, that the article will be safe and without risks to the health of the workers when properly used, the undertaking shall have the effect of relieving the person designing, manufacturing, importing or supplying the article from the duty imposed by clause (a) of sub-section (1) to such extent as is reasonably having regard to the terms of the undertaking."

[31] Section 7A of the Factories Act, 1948

In the second case of wrongs that are an outcome of negligence, it is necessary to determine the mental attitude of the programmer. The three key elements of negligence can be listed as duty, breach and the resulting damage.' The programmer shall be held to be liable if he has not observed the duty of care as is expected from a reasonable and prudent man. The Apex Court of India held as follows-

"For negligence to amount to an offence, the element of mens rea must be shown to exist. For an act to amount to criminal negligence, the degree of negligence should be much higher i.e. gross or of a very high degree…. The word 'gross' has not been used in Section 304A of IPC, yet it is settled that in criminal law negligence or recklessness, to be so held, must be of such a high degree as to be 'gross'."[32]

Applying the Bolam test analogy it may be asserted that in case of AI programming, the standard of care is a matter of professional judgement, that is higher than the standard of care expected from a reasonable and prudent man. Generally, with regard to negligence the point of enquiry would be whether the person had a duty of care, which would be answered in the positive. To the next point of enquiry as to whether there has been a breach and resulting damage, our enquiry would lead us to the causation. If it is proved that the programmer has negligently programmed and that has resulted in the damage - culpability will lie. In cases where it is proved that the programmer, even by reasonable foresightedness, would not have expected such consequent damage, then he cannot be held liable.

The third category of cases arises out of wrongs where no *mens rea* need be proved. In the event of an AI enabled product (robot), that perceives a threat in the human and proceeds to kill it, can the programmer be held liable? If there is an absence of the first two elements discussed hereinabove, then the liability of the programmer would have to be decided as per the Indian criminal law. The concept of Strict liability in Indian legal framework is open to serious objections. Strict liability is applied only in cases of less serious offences. It would be unjustified to punish a man for an unforeseen consequence of his act. He cannot aim at a consequence that is unforeseen. Such unforeseen acts can only be an accidental occurrence or a mistake. An AI enabled robot killing a man is only an accidental occurrence. It is not a mistake where the consequence is intended. An accident may be either culpable or inevitable. An accident is considered culpable when it is caused due to negligence, and it is considered to be inevitable if any amount of standard of care would not have prevented it. As in the present case at hand, the accident is inevitable.

What is this standard of care that is not known to best in the profession? The Thalidomide Baby case had presented such facts. It was not known that the drug Thalidomide could cause deformity in newborn children. The state of knowledge at a given point of time did not raise a doubt on the dangerous effect of the thalidomide molecule on fetuses. Simons[33] suggests that a non-negligent killing can be seen as wrongdoing because it may be factually unjustified, but it cannot be subject to criminal

[32]Jacob Mathew v. State of Punjab(2005)6SCC1

[33]Simons, K.W., 1996. When is strict criminal liability just. J. Crim. L. & Criminology, 87, p.1075.

liability, due to the absence of culpability. The measurement of the standard of care expected of a professional can only be measured in relation to the extent of knowledge available at that given point of time.

Summing up, tracing criminal liability for an AI malfunction leads to an enquiry into the culpability of the act of the programmer, where the AI enabled product is used as a tool to further the criminal intent or the harm is a consequence of negligence.

Yet all cases of criminal liability may not be only of the programmer. Liability issues might arise out of malware or virus attack causing the AI programme to malfunction. There have been multiple instances of such attacks. This can be traced the person causing the attack and hence the liability of the external. "For instance, in the Therac 25-accidents[34] an error/ bug in a computerized therapeutic radiation machine caused it to administer incorrect dosages. Two people were killed and several others were seriously injured. In another case, a construction company alleged that a bug in a spreadsheet program caused the company to underbid a $3 million contract. The company sued the manufacturer of the program for $245,000, claiming it had lost that amount as a result of the incorrect bid. Yet in another case, Scott v. White Trucks (1983), the defendant's truck was equipped with computer- controlled anti-lock brakes. After the brakes failed and the truck crashed, the driver of the truck brought a product liability action alleging defects in the software."[35] In case of external interference with the safe use of the product and damage to the product the liability shifts to the external person. What defenses if at all would be available in such cases? Kingston states that there have been a number of cases where Trojan defense have been successfully used to defer liability.[36] The defense states that the computer has been taken over by a Trojan/ malware programme and the defendant has no knowledge of it. In another case the court even allowed the Trojan defense, which was a self-wiping virus after the defendant proved it was a reasonable possibility.

The Information Technology Act lays down offences with respect to damage to computer and computer systems. Where any person without the permission of the owner extracts data, introduces contaminants, damages data he would have committed an offence under section 43 of the Act. The Act imposes a duty on a body corporate to protect data and provides that any negligence in maintaining reasonable security shall be wrongful. It also lays down other offences such as tampering with source code, or violation of privacy. Here it can be noted that the Indian Apex Court recently affirmed privacy as a basic right[37] under the Constitution of India.

Section 4 of the Report of the Special Task Force discusses the ethical and responsible use of AI technologies with respect to the issues arising out of data ownership, privacy

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[34]For detailed reading of the case see Leveson, N.G. and Turner, C.S., 1993. An investigation of the Therac-25 accidents. Computer, 26(7), pp.18-41.

[35]Abdullah, F., Kamaruzaman, J.H., Mohamed, H. and Setia, R., 2009. Strict versus Negligence Software Product Liability. Computer and Information Science, 2(4), pp.81-88.

[36]Kingston, J.K., 2016, December. Artificial intelligence and legal liability. In International Conference on Innovative Techniques and Applications of Artificial Intelligence (pp. 269-279). Springer, Cham.

[37]K.S Puttaswamy & Anr. v. Union of India & Ors., (2017) 10 SCC 1

and secure sharing.[38] In the summary of the major challenges the report lists[39] out ensuring data security, protection, and privacy as the legal challenges.

E. USER LIABILITY

A user of the AI enabled product or programme shall be held liable for negligent handling of the product or making error in entry of commands.

X. CONCLUSION

As seen from the discussions above *firstly*, the possibility of grant of personhood to AI enabled programmes/ products seems remote. Complete autonomy and an individual distinct from its maker is not possible. In case of AI malfunction, it is recalled back and reprogrammed. That being so, the call for grant of personhood is an emotional argument at the most. Secondly, matters of determination of liability as seen goes back to the manufacturer, programmer, user or the person causing external interference with the product or the programme.

[38]Department for Promotion of Industry and Internal Trade, Report of Task Force on Artificial Intelligence (March 2018), https://dipp.gov.in/sites/default/files/Report_of_Task_Force_on_ArtificialIntelligence_20March2018_2.pdf, last accessed in February 2021.

[39]Ibid at page 10.

TOBACCO VENDOR LICENSING IN INDIA: REINFORCING THAT SELLING TOBACCO IS NOT AN UNFETTERED RIGHT

Prof. (Dr.) Ashok R. Patil*

Abstract

Vendor licensing schemes for tobacco products have been used globally for regulation of tobacco distribution with great success. By requiring tobacco vendors to get a license for distribution of tobacco products, the government can effectively implement the letter and spirit of the COTPA 2003 and the WHO FCTC. As such, the possibility of adopting such schemes in the Indian legal framework must be examined. Accordingly, this article seeks to provide a comprehensive analysis of vendor licensing - the underlying rationale and the benefits, existing legislations, landmark judicial decisions, a procedural framework and the challenges faced.

Key words-
Tobacco Control; Vendor Licensing; Enforcement of COTPA; Public Health

1. INTRODUCTION

The harmful effects of tobacco use are well established and accepted globally. The use of tobacco is a prominent risk factor for 6 to 8 leading causes of death and almost 40% of the Non-Communicable Diseases (NCD) including cancers, cardio-vascular diseases and lung disorders are attributable to tobacco use. According to Global Adult Tobacco Survey-2, India (GATS 2, 2016 -17), 28.6% (266.8 million) of adults currently use tobacco in any form. 21.4% of all adults consume smokeless tobacco product, while 10.7% smoke tobacco. The number of deaths every year in India which is attributable to tobacco use is almost 14 lakhs. Therefore, there is imperative need for framing intensive measures to discourage and eventually eradicate tobacco use and its trade. One such measure is to ensure that the sale of tobacco products is throughly authorized, licensed shops or vendors only.

The rationale for licensing tobacco vendors or sellers is to protect gullible consumers from misconstrued about the harms of the product and ensure public safety and public health. Tobacco is the single largest preventable cause of premature death, disease and disability in India. The sheer magnitude of the harm caused by tobacco clearly justifies the need for strict regulatory schemes through vendor licensing.

*Professor of Law, National Law School of India University, Bengaluru.

In addition to a national framework, tobacco vendor licensing has international support in the World Health Organization Framework Convention on Tobacco Control (WHO FCTC), which is the first coordinated global effort to reduce tobacco use. The WHO FCTC requires Parties to implement evidence-based measures to reduce tobacco use and exposure to tobacco smoke. As per Art. 15 of the WHO FCTC, each Party shall endeavor to adopt and implement measures including licensing, to control or regulate the production and distribution of tobacco products in order to eliminate illicit trade.

Accordingly, this paper seeks to provide a comprehensive analysis of the tobacco vendor licensing framework in India. For this purpose, this paper has been divided into four parts the first part provides an overview of the concept and history of vendor licensing in India. The second part lays down the existing legal framework for tobacco vendor licensing. The third part the salient features of a model vendor licensing law, based on global best practices. The fourth part explains the procedure for implementation of vendor licensing. Finally, the paper concludes with a discussion on the challenges to vendor licensing and possible solutions.

2. VENDOR LICENSING- CONCEPT, HISTORY & BENEFITS

2.1. CONCEPT OF VENDOR LICENSING

The overriding rationale for the support of licensing arrangements is that it facilitates the enforcement of a number of tobacco control measures (for ex, prohibitions on sales to minors, prohibition on advertisements, prohibition on illicit trade, display of health warnings on packages, etc.).

In this light, licensing of tobacco vendors is seen as a way of reinforcing the understanding that selling tobacco is not an unfettered right, but a privilege that requires regulation to restrict its social, economic and health impact.

The regulation of the tobacco industry is justified from an economic perspective, as the consumers of tobacco products are not capable of making a rational decision after properly weighing the costs and benefits of consumption i.e. the tobacco industry is susceptible to market failure . Broadly speaking, regulation seeks to address two types of market failures in the tobacco industry.

(i) Information Asymmetry - Consumers of tobacco products often do not have complete information about the harms caused by tobacco products. This lack of information is due to multiple factors:

a)Minors also consume tobacco products but do not have the capability to properly assess the harms of tobacco consumption. As per the GATS-2 survey, nearly 55.3% of tobacco consumers started consuming tobacco before the age of 19. Despite Sec. 6 of COTPA prohibiting sale of tobacco products to minors, it was found that 81.5% of

minors aged 15-17 had purchased cigarettes from paan shops. In addition, tobacco companies actively promote tobacco product to minors.

b) Misleading industry practices which present tobacco goods to be less harmful than they actually are. As per the WHO notes, tobacco companies have denied the addictive properties of tobacco and the casual relationship between tobacco consumption and cancer in the past. They also promote 'light'/ 'mild' cigarettes as safer than regular cigarettes.

(ii)Negative Externalities - Consumption of tobacco products has numerous negative externalities i.e., the consumption of these products causes a negative impact on other non- smokers. This manifests in multiple ways:

a) Physical externalities where non-smokers are exposed to smoke which is harmful. The health hazard caused by second-hand smoke was recognised by the SC in *Murli S. Deora Vs Union of India*,[2] wherein it prohibited smoking in public places as it led to second-hand smoke which was violative of the right to life of non-smokers under Art. 21 of the Constitution. As per the GATS-2 survey, approximately

38.7% of adults were exposed to second-hand smoke at home and 36.2% of adults were exposed to second-hand smoke at public places.

b) Financial externalities where non-smokers have to bear the financial costs of harm caused by tobacco consumers. As per a report by the Ministry of Health & Family Welfare, tobacco use led to economic costs of Rs. 1,04,500 crores out of which 16% was the direct cost of medical treatment and 84% was the indirect costs of premature mortality and morbidity costs such as expenditure on transportation, costs incurred by caregivers, loss of household income etc.[3]

It is clear that tobacco regulation is justified from an economic perspective. The justification of using vendor licensing arises from the following aspects:[4]

(I) Licensing is justified when the activity sought to be controlled has a negative externality irrespective of the scale of the activity. In the case of the tobacco industry, the harmful effects of tobacco consumption exist irrespective of the scale at which trade takes place. This means as licenses can be utilised to regulate both small-scale and large-scale traders; manufacturers, retailers and wholesalers, they are effective.

(ii) Licensing is justified when the activity sought to be controlled has a negative

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[1]Allen Consulting Group, Licensing of Tobacco Retailers and Wholesalers: Desirability and Best Practice Arrangements (2002) 17

[2](2001) 8 SCC 765

[3]Ministry of Health & Family Welfare, Economic Burden of Tobacco Related Diseases in India (2014) 15

[4]

externality which cannot be managed effectively without prevention/reduction of access. In the case of the tobacco industry, tobacco products can cause irreparable damage to health are addictive, which makes prevention of consumption the most effective method of controlling tobacco consumption.

Accordingly, it is clear that the concept of vendor licensing for the purpose of regulating tobacco consumption is well-established in economic literature and has been successfully utilized by the government for regulation of other sectors.

2.2. HISTORY OF TOBACCO VENDOR LICENSING IN INDIA

The retail sale of manufactured tobacco has been regulated by Government through consolidated laws on sales tax and tobacco vend fee inter-alia authorizing a person to whom it is granted to sell or keep for sale by retail manufactured tobacco (i.e., cigarette, cigar, bidi, chewing tobacco, snuff), by granting license on payment of fee and period as prescribed and subject to such conditions and in such form and containing such particulars as may be prescribed. The laws further declared sale of manufactured tobacco, without license or in breach of any of the conditions subject to which the license has been granted a punishable offence leading to payment of fine and suspension and cancellation of license on conviction. Similar provisions were also prescribed under the pre-independence laws. The Municipal Corporation Acts of States/UTs also incorporated provisions making licensing mandatory for storing, processing and trading in tobacco products. The terms and conditions of issuing/suspension/revocation of licenses are fixed in exercise of power conferred by the Municipal Acts.

The State Municipal Corporation were also empowered under Section 24 of the Prevent of Food Adulteration Act of 1954, to grant license for distribution and sale of pan masala, pan, zarda, chewing tobacco, sweetened supari and allied products. The opening and closing hours and weekly holidays of tobacco retail shops is regulated under the Shops and Commercial Establishments Acts.[5]

2.3. BENEFITS OF TOBACCO VENDOR LICENSING

The benefits of tobacco vendor licensing are manifold and some of them are elucidated below:

I. Enforcement of Tobacco Control Laws: The terms and conditions for issuing/renewal/ cancelling licenses to the eateries/shops/hawkers can include conditions for strict enforcement of the laws regulating tobacco and its ancillary products such as, The Cigarettes and Other Tobacco Products (Prohibition of

[5]Madras Shops & Establishments Act 1947; Bombay Shops & Establishments Act 1948

Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003, The Food Safety& Standards Act 2006, The Drugs and Cosmetics Act 1940, the Juvenile Justice (Care & Protection of Children) Act, 2015, The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, The Environment Protection Act, 1986, The Legal Metrology Act 2009, The Prohibition of Electronic Cigarettes (Production, Manufacture, Import, Export, Transport,

Sale, Distribution, Storage and Advertisement) Act, 2019 and the enabling rules/regulations thereof. The aforesaid enactments include specific provisions that apply to tobacco vendors inter-alia prohibiting advertisement of tobacco products at their point of sale, except as prescribed by Rules, prohibiting sale of tobacco products to or by minors, prohibiting sale of tobacco products near educational institutions, prohibiting sale of tobacco products loose or in packages not containing the prescribed pictorial health warnings, prohibiting sale of food products having tobacco as an ingredient, prohibiting sale of tooth powder and tooth paste containing tobacco, prohibiting use of plastics material for packaging of tobacco in any form, prohibiting employment of minors in handling of tobacco, prohibiting sale of un-packaged tobacco products or sale in packages without mandatory declaration and prohibiting sale of electronic cigarettes etc.

ii. Exclusive Tobacco Shops: The terms and conditions of licenses can include a condition that the tobacco vendors shall exclusively sell tobacco products only and other goods/ articles especially those intended for children such as toffees, candies, cakes, chips etc., shall not be sold from the same shop or premise.

iii. Permanent or Semi-permanent tobacco shop: The terms and condition of licenses can include a condition that licenses shall be granted to only permanent or semi-permanent shops, thus restricting sale though mobile carts/kiosks, bars, restaurants etc.

iv. Reduce density of tobacco shops: The terms and condition of licenses can include a condition that licenses shall not be granted to shops in residential areas, near educational institutions and further envisaging a condition requiring population based minimum distance between tobacco retailers, to reduce the number and density of tobacco vendors.

v. Revenue Generation: Licensing of tobacco vendors can generate revenue for municipal bodies and state government to cover enforcement/administrative costs of the licensing system as well as other ancillary costs.

vi. Mapping of Vendors: Licensing of tobacco vendors will ensure availability of details of Business Premises/Location//Details of Business/Item of Trade, thus helping in mapping the tobacco trade for better regulation.

vii. Prevention of spread of infectious diseases: Licensing of tobacco vendors will

restrict the spread of infectious diseases like Covid-19 and other infectious diseases such as tuberculosis, hepatitis, influenza, etc., by easy monitoring of applied regulations for the containment of diseases. The tobacco vends are often used to facilitate tobacco use by providing lighters, matchbox, burnt thread, spittoons etc. The spitting of chewing tobacco and callous disposal of used cigarettes and bidi butts often leads to spread of infectious diseases such as Covid-19, tuberculosis, hepatitis, influenza, etc. Thus licensing of tobacco vendors can ensure that there is no use and disposal of tobacco products in and around tobacco vends.

viii. Prevention of Illicit Trade: Licensing of tobacco vendors will reduce illicit trade in tobacco products. This is also in compliance with WHO FCTC Article 15 and Protocol to Eliminate Illicit Trade in Tobacco Products, which India has ratified and therefore it has to adopt and implement measures including licensing, to control or regulate the production and distribution of tobacco products in order to prevent illicit trade.

Therefore, it is clear that tobacco vendor licensing has an established theoretical basis and history of usage, along with evidence that these policies have tangible benefits if implemented properly.

3. LEGAL OPPORTUNITIES FOR TOBACCO VENDOR LICENSING IN INDIA

Regarding the legal framework, tobacco vendor licensing has strong support from three aspects: India's existing legislations which seek to regulate tobacco distribution and consumption; central and state legislative instruments which specifically seek to implement vendor licensing schemes; and judicial pronouncements on vendor licensing.

3.1. STATUTORY BASIS FOR TOBACCO VENDOR LICENSING

The Central Government has enacted special laws or included specific provisions to regulate the production, distribution, sale and use of tobacco products, some of these are reproduced as below:

I. The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act,2003, mandates, prohibitionon smoking in public places,[6] prohibition on direct and indirect advertisement of tobacco products, prohibition on sale of tobacco products

[6] *Murli S. Deora v. Union of India and Ors*. (2001) 8 SCC 765,Supreme court under Art. 32 of Constitution of India by way of writ petition as fundamental guaranteed under Art. 21 of our Constitution provide that no one shall be deprived of his life without due process of law. There is no reason why a nonsmoker should be troubled by number of diseases just because he has to visit public places. It is clear that he has been indirectly deprived of his right to life without process of law. Smoking is injurious to health and hence affects health of smoker but there is no proper cause why health of nonsmoker should be affected. Nonsmokers should not be compelled to become helpless victim of air pollution.

tominors, prohibition on sale of tobacco products near educational institutions and display of pictorial health warning on tobacco products packages. The Juvenile Justice (Care and Protection of Children) Act, 2015,prohibits giving to any child any tobacco products. There have been numerous cases where tobacco products were sold to children or near school premises.[7] The offender will get imprisonment of seven years and a fine of Rs 1 lakh against the earlier fine of Rs 200 imposed under the Cigarettes and Other Tobacco Products Act (COTPA).[8] With enactment of this act, India has becomes one of the nations who has imposed such a harsh penalty for selling to minors tobacco products.[9] In case of *Akshay Chadha Vs State (NCT of Delhi)*[10] petitioner seeks anticipatory bail in case filed under Sec. 77 of Juvenile Justice (Care and Protection of Children) Act 2015. In this case two children in conflict with law were produced before Juvenile Justice Board and stated that despite being juvenile they were allowed to smoke hookah at Keeva West Gate Mal. A raid was conducted on premise and two hookah packets and one packet of flavored tobacco was found and seized. From the statement recorded from children under Sec. 164 Cr.P.C. it is clear that premise was owned by petitioner and run under petitioner control and children were allowed to smoke tobacco hookah means tobacco was allowed to minor.

ii. The Environment (Protection) Act-1986, r/w the Plastic Waste Management (Amendment) Rules,2016,prohibitsuse of plastic material for storing, packing or selling gutka, panmasala and tobacco in all forms.

iii. The Food Safety and Standards Act, 2006 (FSS Act), read with Regulation 2.3.4 of the Food Safety and Standards (Prohibition and Restrictions on Sales) Regulation, 2011, prohibits the use of tobacco and nicotine as ingredients in any food products and inter-alia prohibits the manufacture and sale of gutkha, pan masala (containing tobacco and nicotine) etc. The FSS licensing Regulations prohibiting handling of food items with tobacco. In case of *Joshy K.V. Vs State Of Kerala*, petitioner filed writ petition against respondent as respondent prevent him from supplying and selling tobacco product in Kerala saying it violate the provisions of Food Safety and Standards Act, 2006. Kerala high court state that tobacco and other products containing tobacco are not food under Sec. 3(1)(j) of Food Safety and Standards Act, 2006 and also it is not

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[7]See alsoMuhammedkutty v. State of Kerala (2017 SCC OnLine Ker 29688); Riyas v. State of Kerala (2017 SCC OnLine Ker 29900); Jayakumar v. State of Kerala (2018 SCC OnLine Ker 4989); Abdul Azeez v. State of Kerala (2018 SCC OnLine Ker 14529); Vijayappan v. State of Kerala (2020 SCC OnLine Ker 3300)

[8]Tabassum Barnagarwal, 'Amended Juvenile Justice Act makes tobacco sale to minors punishable'*Indian Express* (Mumbai, 22 January 2016) <https://indianexpress.com/Art./cities/mumbai/amended-juvenile-justice-act-makes-tobacco-sale-to-minors-punishable/> accessed 17 October 2020

[9]Pankaj Chaturvedi, 'Juvenile Justice Act: India is the only nation to impose harsh penalty on sale of Tobacco to minors'First Post (16 January 2016) <https://www.firstpost.com/india/juvenile-justice-act-india-is-the-only-nation-to-impose-harsh-penalty-on-sale-of-tobacco-to-minors-2586786.html> accessed 17 October 2020

[10]FIR No. 690/2017.

food products as given in regulation 2.3.4 of Food Safety and Standards (Prohibition and Restrictions on Sales) Regulations, 2011. Therefore, court held that respondent has no right to take action under Food Safety and Standards Act, 2006 against petitioner for selling tobacco products as it is manufactured and sold in accordance with provision of COTPA Act 2003. The Drugs & Cosmetics Act, 1940, r/w notification GSR 443(E)/ 444(E), dated 30th April, 1992, prohibits the use of tobacco in tooth-pastes/tooth-powders and the sale, supply, import, manufacturing and trade of nicotine for human consumption in Indiais only permitted under "Schedule K" of "Drugs and Cosmetic Rules, 1945" as an aid for nicotine replacement therapy (NRT). The Legal Metrology Act r/w the Legal Metrology (Packaged Commodities) Rules, 2011: prescribes mandatory declaration for packaged commodities including tobacco products, such as details of manufacturers, importers etc. As noted by the Supreme Court in *State of Telangana Vs Himajal Beverages*,[11] the declarations under Sec. 18 of the LM Act 2009 r/w Rule 6(1) and 6(2) of the LMPC Rules 2011 are mandatory and the manufacturer must comply with these directions.

iv. The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, prohibits the engagement of children in all occupations and prohibits the engagement of adolescents in hazardous occupations and processes. Beedi-making or processing of tobacco including manufacturing, pasting and handling of tobacco in any form, is included as hazardous occupations or processes

in the Schedule to the Act. The children working in tobacco farms may cause an immediate health risk and fall sickness due to absorption dermal nicotine from the green leaves of tobacco plant.[12] They may also face variety of hazardous exposures, including long hours, lacerations and piercings from equipment, chemicals, heavy lifting, climbing, and extreme weather conditions.[13]

v. The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) (Amendment) Acts, State Governments of Gujarat, Punjab, Rajasthan and Maharashtra have amended COTPA, by including provisions prohibiting opening and running of hookah bar.

vi. The Prohibition of Electronic Cigarettes (Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement) Act, 2019, prohibits production, manufacture, import, export, transport, distribution, storage, sale and

[11]Writ Appeal No. 985/2018

[12]N. Lecours, G. E. G. Almeida and J. M. Abdallah et al., 'Environmental health impacts of tobacco farming: A review of the literature' (2012) 21 *Tobacco Control* 191, 196

[13]Human Rights Watch, *Tobacco's Hidden Children: Hazardous Child Labor In The United States Tobacco Farming* (2014)

advertisements of Electronic Cigarettes. The High of Delhi in Seema Sehgal Vs Union of India held that comprehensive ban on the manufacture, import, sale, distribution, storage and advertisement of e-cigarettes throughout India is imperative and in the public interest.

3.2. CENTRAL GOVERNMENT ADVISORY ON TOBACCO VENDOR LICENSING

I. The Ministry of Health & Family Welfare, Government of India, vide Advisory No.P-16012/14/2017-TC, dated 21st September 2017 to all States/UTs, referred to the tobacco control laws as means to achieve improvement of public health enshrined in Article 47 of the Constitution of India. The Advisory further stated that the regulation of tobacco products can be more effectively achieved by developing a mechanism to provide permission/authorization through Municipal/ Local Authority to the retail shops of tobacco products with a condition/ provision in the authorization that the shops authorized for selling tobacco products can not sell any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., which are essentially meant for children.

ii. The Ministry of Housing & Urban Poverty Alleviation, Government of India, vide Advisory D. No.N-11025/41/2018-LSG, dated 25th September 2018 to all States/ Uts/ Urban Local Bodies, referred to the Ministry of Health & Family Welfare, Government of India, dated 21st September 2017 and inter-alia advised the States/UTs/Urban Local Bodies, to take the following action:

a) A mechanism may be developed to provide permission/authorization/vendor license through Municipal/Local Authority to the retail shops selling tobacco products. This will help in compliance with all the applicable tobacco control laws at the retail level and will also generate revenue for Municipal Bodies to cover the enforcement of licensing system and for public health.

b) It may been sured that the tobacco products are stored/ sold only through authorized shops/ retail out lets/ kiosks authorized under the Municipal Acts and Rules which have valid TIN/PAN/GSTNo.

c) Further, it would also be appropriate to make a condition/provision in the authorization that the shops authorized for selling tobacco products cannot sell any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., which are essentially meant for non- tobacco users especially children.

d) State Government Specific Acts for Regulation of Retail Business of Tobacco Products and State Municipal Acts to Regulate Trade in Tobacco Products

3.3. MUNCIPAL LAWS

Various State Governments issued notifications, orders, rules under their local or Municipal or Panchayat Acts to regulate tobacco trade by using provisions that

prescribed compulsory licensing and incorporated conditions for compliance with tobacco control laws.

I. Kerala Panchayat Raj Act, 1994: The Kerala Government has notified, tobacco storing, processing, making and selling as offensive or dangerous to human life, health and property under the Kerala Panchayat Raj (Issue of License to Dangerous & Offensive Trades and Factories) Rules, 1996. Thus, mandating compulsory licensing under Section 232 of the Kerala Panchayat Raj Act ,1994.

ii. The Mumbai Municipal Corporation Act: The Mumbai Municipal Corporation issued Circular dated 4thJuly, 2011, inter-alia incorporating conditions for compliance with COTPA, 2003,under Section 394 of the Mumbai Municipal Corporation Act.[14]

iii. Bihar Municipal Act,2007: The Municipal Commissioner of Patna, in terms of Government of India, advisory dated 21st September 2017 and in exercise of power conferred by section 342 read with entry 324 of the schedule, and section30 (6)of the Bihar Municipal Act, 2007, passed an order dated 02.11.2017, directing that, there will be no storing, packing, pressing, cleansing, preparing or manufacturing by any process whatsoever and any kind of trade in tobacco products without permission/authorization/license under the Bihar Municipal Act,2007, further the retails shops authorized/licensed for selling tobacco products will comply with the provision of the Cigarettes and other Tobacco products (Prohibition of Advertisement and Regulations of Trade and Commerce Production, Supply and Distribution) Act 2003 and Rules, the Juvenile Justice (Care and Protection of Children) Act, 2015 and the Food Safety & Standards Act, 2006 and Regulations and not sell tobacco products loose and any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., to protect children from the exposure to tobacco products.[15]

iv. Jharkhand Municipal Act, 2011: The Municipal Commissioner of Ranchi, in terms of Government of India, advisory dated 21st September 2017 and in exercise of power conferred by section 455 read with entry 187 of the schedule, of the Jharkhand Municipal Act, 2011,passed an order dated 25.04.2018, directing that, there will be no storing, packing, pressing, cleansing, preparing or manufacturing by any process whatsoever and any kind of trade in tobacco products without permission/

[14]Section 394 of the Mumbai Municipal Corporation Act mandates that except under and in accordance with the terms and conditions of the license granted by the Commissioner, no person shall keep or use upon any premises, any article, carry any trade, process or operation, which is dangerous to life, health or property, or likely to create a nuisance.

[15]Section 342 of the Bihar Municipal Act 2007 read with entry 324 of the Schedule of the Act, mandates that a premise may not be used for the purposes of storing, packing, pressing, cleansing, preparing or manufacturing by any process whatsoever, tobacco (including snuff, cigar, cigarette and bidi) without a license or written permission.

authorization/ license under the Jharkhand Municipal Act, 2011, further the retails shops authorized/licensed for selling tobacco products will comply with the provision of the Cigarettes and other Tobacco products (Prohibition of Advertisement and Regulations of Trade and Commerce Production, Supply and Distribution) Act 2003 and Rules, the Juvenile Justice (Care and Protection of Children) Act, 2015 and the Food Safety & Standards Act, 2006 and Regulations and not sell tobacco products loose and any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., to protect children from the exposure to tobacco products. Subsequently other Municipal Councils of the State issued similar orders.[16]

v. Rajasthan Municipalities Act 2009,in exercise of power conferred by section 282(1) read with sections 269/340, passed an order dated 04.01.2018, directing that, there will be no storing, processing, distribution and sale in tobacco products without permission/authorization/license under the Rajasthan Municipal Act, 2009, further the retails shops authorized/ licensed for selling tobacco products will comply with the provision of the Cigarettes and other Tobacco products (Prohibition of Advertisement and Regulations of Trade and Commerce Production, Supply and Distribution) Act 2003 and Rules, the Juvenile Justice (Care and Protection of Children) Act, 2015 and the Food Safety & Standards Act, 2006 and Regulations and not sell tobacco products loose and any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., to protect children from the exposure to tobacco products.

vi. Uttarakhand Municipal Act 1959, in exercise of power conferred by section 2(46)[17] read with sections 114[18] /437[19]/438passed an order dated 03.12.2019, directing that, there will be no storing, processing, distribution and sale in tobacco products without

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[16]Section 455 - Premises not to be used for non-residential purpose without municipal license - No person shall use, or permit to be used, any premises for any of the non-residential purposes mentioned in the Schedule without or otherwise than in conformity with the terms of a license granted by the terms of a license granted by the Municipal Commissioner or the Executive Office. Entry 187: Tobacco (including snuff, cigar, cigarette and bidi) - storing, packing, pressing, cleansing, preparing or manufacturing by an process whatsoever.

[17]Sec.2(46) Uttarakhand Municipal Act 1959 -defines nuisance includes any act, omission, place or thing which causes or is likely to cause injury, danger, annoyance, or offence to the sense of sight, smell or hearing or which is or may be dangerous to life or injurious to health or property;

[18]Sec.114, Uttarakhand Muncipal Act 1959- Obligate the Muncipal Corporation to regulate and abatement of offensive and dangerous trades callings or practices including prostitution.

[19]Sec. 437, Uttarakhand Muncipal Act 1959 - If the municipal commissioner is satisfied that any person uses or intends to use as a factory or other place of business for the manufacture, storage, treatment or disposal of any article by reason of such use or by reason of such intended use, occasion or is likely cause a public nuisance defined under Sec 2 (46) within the limits of the city by notice desist or refrain from using or allowing to be used such places for such purpose or only to use, or allow to be used, the building or place for such purpose under such conditions or after such structural alterations as the Corporation imposes or prescribes in the notice with the object of rendering the use of the building or place for such purpose free from objection.

permission/ authorization/ license under the Uttarakhand Municipal Act, 1959, further the retails shops authorized/licensed for selling tobacco products will comply with the provision of the Cigarettes and other Tobacco products (Prohibition of Advertisement and Regulations of Trade and Commerce Production, Supply and Distribution) Act 2003 and Rules, the Juvenile Justice (Care and Protection of Children) Act, 2015 and the Food Safety & Standards Act, 2006 and Regulations and not sell tobacco products loose and any non-tobacco products such as toffees, candies, chips, biscuits, soft drinks etc., to protect children from the exposure to tobacco products.

vii. Uttar Pradesh Act of 1959: The Municipal Commissioner, Lucknow under rights conferred in sections 437[20], 438(1)D(2)[21] ,541[22], 542 and 543 of the Uttar Pradesh Municipal Corporation Act 1959, passed an order dated 22.11.2019 publishing the Lucknow Municipal Corporation(Determination, Regulation and Control of License Feefor Sale of Tobacco Products and License Fee) By-Law 2019. It prohibits the sale of tobacco products without license and prohibits sale of other products along with tobacco products.

viii. West Bengal Municipal Act 1993: The Office of District Magistrate of PurbaBardhman, Darjeeling, Kalimpong, Nadia, Purulia etc., requested the Municipal Authority to provide vendor license to all vendors selling tobacco products under Schedule II of Section 201 of the West Bengal Municipal Act,1993, which states tobacco can not be stored or sold without license or written permission in the municipal areas of West Bengal.

ix. Karnataka Municipalities Act 1976, in exercise of power conferred in Sec. 325 of the Karnataka Municipalities Act 1976 which reads as power of government to make bye-laws on any of the matters enumerated in Section 324, passed a notification dated 31.12.2020 wherein it published the draft Karnataka Municipalities (Regulation and inspection of places used for sale of cigarettes and other tobacco products) Model Bye-Laws 2020 and the draft Karnataka Municipal Corporations (Regulation and inspection of places used for sale of cigarettes and other tobacco products) Rules 2020.

x. The Himachal Pradesh Prohibition of Sale of Loose Cigarettes and Beedis and Regulation of Retail Business of Cigarettes and Other Tobacco Products Act, 2016,

[20]Sec. 437: Regulation of Offensive Trade-

[21]Sec. 438: Certain things not to be kept, and certain trades and operations not to be carried on without license

[22]Sec.541: Bye-laws for what purpose to be made: The Muncipal Corporation has empowered to make bye-laws with respect to any trade or operation which is dangerous to life or health or property or likely to create a nuisance either from its nature or by reason of the manner in which or the conditions under which. the same, is or is proposed to be carried on.

this Act makes registration for carrying retail business of any tobacco products compulsory and further prescribes imprisonment and payment of fine for violation of the provision.

3.4. JUDICIAL ORDERS ON TOBACCO VENDOR LICENSING

The following judicial decisions/orders also provide for regulation of tobacco retail business and its use through licensing:

I. *Dr. Kaustubh Dadhich Vs The State of Rajasthan & Ors.*[23] The Hon'ble Rajasthan High Court vide order dated 20.09.2017 held that licensee of the kiosk who have been permitted to sell dairy products and food articles should strictly adhere to the terms of the license and not sell any tobacco product, be it in the shape of cigarette, bidi or gutkha pouches. The writ petition was disposed off with issuance of directions to the respondents to ensure that the licensees of the kiosk would sell products strictly as per the license and should there be any violation, action to cancel the license of the licensee would be taken.

ii. *Court On its Own Motion Vs State of Himachal Pradesh & Others*[24] The Hon'ble Himachal High Court vide judgment and order dated held on 6th November, 2018, dealt with the provisions of the Himachal Pradesh Prohibition of Sale of Loose Cigarettes and Beedies and Regulation of Retail Business of Cigarettes and Other Tobacco Products Act, 2016, (hereinafter referred to as the State Act), which made registration for carrying retail business of any tobacco products compulsory and further prescribed imprisonment and payment of fine for violation of the provisions. The Court opined: "As is evident from the record, the State Act of 2016 was brought into force only during the pendency of this petition and the same needs to be implemented in letter and spirit. No retailer of tobacco products which is not registered with the registering authority as notified by the state government vide notification dated 30.8.2018 should be allowed to sell distribute or store tobacco products. Such retailers if found violating the provisions of COTPA should be dealt strictly, regular inspections for sensitization of retailers as well as general public including school children should be resorted to, incentives to those who challan the defaulters shall be in the form of reward which shall be a part of fine levied."

iii. *Crusade Against Tobacco Vs Union of India Public Interest Litigation*,[25] The Bombay High Court directed the Bombay Municipal Corporation to incorporate necessary terms and conditions in the licenses of eating houses, including existing licenses, to provide

[23]CWP No. 5131/2016

[24]2018 Indlaw HP 2206

[25]PIL No. 111 of 2010

that licensees shall comply with COTPA, 2003 and the Rules made thereunder and breach of the said condition shall entail cancellation/suspension of license. Subsequently BMC issued a Circular under Section 394 of the Mumbai Municipal Corporation Act inter-alia including conditions in compliance with COTPA 2003 and the Rules made thereunder.

iv. *Fariyaad Foundation Vs Government of Jharkhand &Ors.*,[26] The High Court of Jharkhand in the PIL vides its judgment order dated 15th January 2021, directed the State Government as well as Deputy Commissioners and Senior Superintendent of Police/ Superintendent of Police of each and every districts of the State to comply with order dated 12.01.2021, inter-alia mandates that there is no sale of tobacco products without authorization/license issued under the Jharkhand Municipal Corporation Act 2011 for one year from the date of issuance of the order. Further, the terms and conditions of the license shall also envisage the tobacco products will not be sold with food articles including Pan Masala and shall comply with the tobacco control provisions envisaged under the COTPA 2003 and Rules, the Juvenile Justice (Care and Protection of Children) Act 2015, the Food Safety & Standards Act 2006 and its Regulations.

Therefore, it is clear that there is a clear move towards adopting tobacco vendor licensing schemes in the Indian legal framework at various levels of central and state implementation.

4. Global Best Practices on Tobacco Vendor Licensing

Tobacco vendor licensing has been utilized in other jurisdictions as well. For the purpose of analyzing global best practices, this report discusses the tobacco vendor licensing schemes in Australia, Canada and USA. It must be noted that as there is no uniform policy in these countries, the practices followed in various regions of these nations are highlighted below :[27]

I. Licenses are required by all retailers and wholesalers.

ii. The license only applies to specified premises and it must be prominently displayed to the public.

iii. Licenses are not transferable.

iv. For violation of the tobacco vendor licensing scheme, penalties are imposed through monetary fines and cancellation & suspension of license.

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[26]W.P. PIL No. 954 of 2019

[27]Public Health and Tobacco Policy Center, Tobacco Retail Licensing: Promoting Health Through Local Sales Regulation (2017) 30-36; Non-Smokers' Rights Association, Reducing The Availability Of Tobacco Products At Retail: Policy Analysis (2011) 39-56.

5. Salient Features of a Model Vendor Licensing Law

Based on the existing laws in India and global best practices, the salient features of a model vendor licensing law would involve the following:

I. All tobacco vendors, whether retailers or wholesalers, should have a license.

ii. All tobacco vendor license shall be valid for a 12-month period, should be non-assignable or transferable and must be renewed annually.

iii. All applicants for the purpose of obtaining a license, must comply with the tobacco control laws. The compliance of tobacco control laws should be treated as the minimum operational standards.

iv. All applicants for the purpose of obtaining a license, must confirm that they have read, understood and agreed to abide by all applicable laws regarding the sale of tobacco products.

v. All applicants for the purpose of obtaining a license, must confirm that they are not an affiliate of tobacco industry.

vi. All tobacco wholesalers should be allowed to sell only to licensed retailers and wholesalers.

vii. All tobacco suppliers must provide a list of the vendors to whom they are supplying tobacco products to the regulatory authority.

viii. All tobacco retailers should be allowed to purchase tobacco products from licensed wholesalers only.

ix. All tobacco license should be applicable to a particular venue.

x. All tobacco license should be displayed prominently at each premises which is engaged in sale of tobacco products.

xi. The license fees for acquiring the license should be appropriately determined to recover only the costs associated with:

(a) The administration of the licensing scheme

(b) The enforcement of licenses, which includes inspections and compliance checks

(c) The provision of information about licensing to consumers and the public

(d) The provision of information about licensing to applicants and licensees

xii. The tobacco license should be given to vendors exclusively selling tobacco products and sale of non-tobacco products such as toffees, candies, biscuits, chips etc., with tobacco products shall be prohibited.

xiii. The licensee must have a valid TIN/PAN/GST Number.

xiv. The penalty for contravention of terms and condition of license should be gradual with imposition of fine, followed by suspension of license and eventually cancellation of license.

Every existing tobacco vendor licensing scheme in India must be evaluated through this standard and any future policies should incorporate the same, in order to be effective in meeting the goal.

6. VENDOR LICENSING - PRACTICE & PROCEDURE

As a regulatory tool, vendor licensing facilitates better implementation of local, state, and federal laws concerning tobacco control. Therefore, it is important that the government should adopt a systematic process to effectively implement this policy. Although, in an evolving policy instrument such as tobacco vendors licensing, the process can go back and forth, a broad framework of the process can still be outlined, as given below.

6.1. BASE LINE SURVEY

The main goal of baseline survey is to conduct a community environmental assessment of the tobacco vendors for the implementation of licensing policy in a particular jurisdiction. Baseline is important for building a database, a reference for the purpose of monitoring, as well as creating awareness about the density and severity of tobacco availability. This also helps in mobilizing citizens for tobacco control. Baseline survey data has been effectively used to sensitize decision makers in favour of adopting and implementing a tobacco vendor licensing policy.

The Key Information Points in baseline survey include: Number (and density) of tobacco vendors; distance between tobacco vendors; location of tobacco vendors, type of business that sell tobacco, types of tobacco products for sale, and other tobacco control provisions, including COTPA 2003 (such as ban of sale by minors; ban on TAPS including product display, ban on sale of singles cigarettes, mandate health warning labels).

6.2. NOTIFICATION FOR START OF ISSUING VENDOR LICENSING

Once the vendor licensing policy is adopted or announced, a formal notification for initiating the issuance of licenses for tobacco vendors needs to be issued. Ideally, there should also be a Gazette notification so that the vendor licensing policy/order gets formally included in the legal and governance architecture of the state. After gazette notification, it would be hard for the tobacco industry or its front groups to lobby to get it reversed.

In most of the case where vendors licensing has been systematically adopted and implemented, the notification for vendor licensing was done in 2 stages: the first notification expressing and declaring the intent of the concerned authority to adopt

the vendor licensing policy, the second notification delineating the rules and/or implementation guidelines. The time lag between the two notifications has been significantly longer, requiring consistent efforts with the concerned government officials to move and conclude the process.

6.3. PRINTING OF REGISTRATION FORM, A) OFFLINE; B) ONLINE

As part of the preparatory process, the required forms for vendor licensing registration should be printed well in time. Now that, lot of similar forms for other licenses are put up online, vendor licensing registration form could also be made available both online and offline.

6.4. APPOINTMENT OF NODAL OFFICER/ ENFORCEMENT OFFICER WITH IN MUNICIPAL CORPORATION

Since issuing licenses is going to be a large exercise, especially in the initial days/months, it would need a dedicated officer within Municipal Corporation, as Nodal Officer, the person that people - vendors as well as TC advocates or public at large - with issues in vendor licensing could go to and get redressal. Something what Lucknow Municipal Corporation has done.

6.5. AWARENESS AND DISSEMINATION CAMPAIGN

Simultaneous to the steps 3 & 4, comprehensive awareness and dissemination need to happen. When this policy gets to the stage of implementation, it is quite likely that the tobacco industry, possibly through its front groups, will start disinformation campaign and try to thwart the whole exercise. The government/municipal corporation should pre-empt this, and pro-actively reach out to public at large about the value and necessity of tobacco vendor licensing.

6.6. SCRUTINY OF APPLICATION FORMS AS PER THE CRITERIA

The next cumbersome exercise will be scrutiny of received applications based on the criteria laid in the vendor licensing policy. Different states and/or municipal corporations will complete this exercise based on their capacities. One has to keep in mind the time-sensitivity, as vendors would make noises about the delay. To deal with the initial workload, Municipal Corporation could seek help of trained volunteers from civil society organizations, colleges, or universities to assist its officers.

6.7. GRANT OF LICENSE AS PER CRITERIA

Granting of licenses as per the criteria is the next step. These are also times, when states, through municipal corporations, are putting in place vending policies in general. The granting of tobacco licensing needs to be in alignment with vending policy.

6.8. MONITORING THROUGH SQUADS

Along with all possible facilitative measures to get the policy going for venders, the policy will have to be effectively monitored and enforcement. And one of the most potent ways to do this is through enforcement squads, especially in initial years to bring the message to the vendors that provisions and issuance of license is being tracked. Municipal Corporation bodies are already quite experienced in undertaking such steps.

6.9. MONITORING AND SUSTAINABILITY

It is suggested to constitute an advisory committee comprising of representatives from different departments and civil society organization which shall meet quarterly. Ideally, the committee should be headed by Municipal Commissioner, and meet at least every quarter. Once the policy has been implemented, it is also important to monitor compliance through another round of data collection through endline survey.

7. CONCLUSION

Licensing of tobacco vendors or sellers is essential to protect consumers from misconstrued notion about the harms of tobacco and to ensure public safety and public health. Tobacco is the single largest preventable cause of premature death, disease and disability in India. Thus, the harm caused by tobacco clearly justifies the need for strict regulatory schemes through vendor licensing. The adoption of licensing of tobacco vendors will facilitate enforcement of tobacco control policies and measures.

As it is an innovative policy, tobacco vendor licensing does not have many precedents, and therefore has faced several challenges across states and municipalities. Two major challenges, which have slowed down the process of both adoption and implementation the policy include tobacco industry pushback manifesting in different ways, and disadvantage of being a starter without precedence and consequent lack of understanding among decision makers.

Since the vendor licensing will have far reaching consequences in tobacco use, the tobacco industry has tried all possible tricks to thwart the policy. Some of these methods include;

"Aligning with small traders and vendors associations to get them visibly engaged in creating a counter narrative,

"Reactive arguments such as loss of livelihood pushed in media,

"Building support among the public and policymakers using livelihood argument.

As experienced by several law making and enforcement processes, tobacco industry pushback can manifest in several ways - protests through farmers groups, vendors raising the bogey of livelihood loss, lobbying by tobacco manufacturers, and several other interest groups such as bidi workers.

The second challenge has meant that process of policy passage has invariably been a protracted one, with shifting responsibility from one government department to another. Additionally, the public representatives in general are very apprehensive of the impact of vendor licensing policy on their voters' base, as the livelihood arguments can be misused and camouflaged as 'license raj' etc. In two cities, where the implementation has been put through a proper process of notification and gazette, it has taken nearly 2 years from the first notification and the actual implementation after the rules and/or guidelines for vendors licensing started.

To address these challenges, the authorities, Municipal Corporations, or the State Government supported by tobacco control community need to able to anticipate these challenges, wherever possible open channels of communication with perceived affected groups such as tobacco vendors and their associations to sensitize them about the real issues involved and create a counter narrative with the help of sensitized vendors and media. For ex., in Lucknow, to build a new narrative, research studies were conducted indicating that it was possible for vendors to choose between selling tobacco and non-tobacco products. For majority of vendors tobacco products were not the main source of revenue, and for some where tobacco products were important source of revenue, they could forgo other products such as toffee, candy, cold drinks etc.

RAMIFICATION OF PANDEMIC ON HUMAN RIGHTS

Prof S D Sharma*

Abstract

Inherent dignity and inalienable rights of the human beings are foundation of freedom, justice and peace. All the human rights are for the promotion and protection of human beings. During the COVID 19 Pandemic human rights education, protection and promotion are for universal standing for the safety of life. Principles of equality access to health care are required to be guided by medical science. Life as a core centric of human rights is suffering the tragic loss physically, spiritually, and mentally. Thus, the duty of everyone to prevent the effect of pandemic virus. Coordination, responses, exchange of the good practice and help to each other in the quest for the quicker recovery is the need of the hour.

Key words-

COVID 19, Pandemic, Human Rights and Ramification.

1. INTRODUCTION

Roseanm Rife, rightly observed about human rights during COVID 19 that"certain human rights, such as the fundamental requirements of fair trial and right to be free from the torture, cannot be restricted, even in the time of emergency.[1] COVID 19 Pandemic is global emergency on epidemic health protection issues. At present physical and mental health as, human rights is under challenge to prevent the pandemic, epidemic, occupational disease and its treatment. Assure by the state all medical services and medical attention in the event of health emergency.[2] In a global family during the pandemic period attention to treatment to the health of vulnerable communities including disabled, migrated labor, women, children, transgender, and senior citizens. Beside this issue, it is also the quest related to protection of rights of refugee and displaced persons.

*Professor & Director, Dr Rajendra Prasad Law Institute Kumaun university, at present SS Jeena University Almora Uttarakhand,

[1]East Asia Research Director, Amnesty, International. It is a nongovernmental organizationestablished on May 28, 1961 by Mr Peter Benenson in London.Its function is to raise the voice against the violation of human rights. It is a well established reputed human rights protecting agency in global society.

[2]International Covenant on Economic, social and Cultural Rights 1966 Art 12 (2) ©, General Assembly of United Nations opened for signature to the member states with the object that principles proclaimed in the charter of the United States, recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice, peace in the world.

The way to the effective of management of the pandemic was the application of doctrine of non-discrimination, participation, empowerment, and accountabilities to all policies for human society. Any kind of coercive measures which violates the human rights is not permissible in any time. The effect of COVID 19 is a global crisis thus; it is a need in the co-operative society the cooperation and help to each other for developing of vaccine and proper treatment.

Dainius Puras special Rapporteur of Human Rights Council said, "Advances in biomedical sciences were very important to realize to right to health during this pandemic, but equally important were protection of human rights. The principles of non-discrimination, participations, empowerment and accountability are needed to be taken into consideration.[3] During the pandemic Crisis right to privacy, while using technology is needed to be protected. Rights of health workers and Corona preventive volunteers are also needed to be protected. The persons are living in poverty, their rights are needed to be protected, promoted and safeguard. All persons have human dignity and have the right to pursue happiness. State is under obligation to confirm, guarantee and safeguard all kinds of rights of individual during pandemic period by adopting the principle of maximum satisfaction and minimum fractions.

2. QUEST OF HUMAN RIGHTS UNDER WHO DURING CORONA VIRUS

Balancing aspect of human rights is that "everyone has the right to protect his health and development of his personality in so far as he does not violate the rights of others or offend against the Constitutional order or the moral Code".[4] Concept of the maximum satisfaction of the people during COVID 19 accepted by World Health Organization and Director General of WHO Dr Tedros Adhanom Ghebre yesus said "all countries must strike a fine balance between protecting health, minimizing economic and social disruption, and respecting human rights.[5] Human rights frame work provides a crucial structure that can strengthen the effectiveness of global efforts to address the pandemic.[6] COVID 19 has effected to all human beings without considering any kind of discrimination of religion, caste, sex, color, race, language, religion, political, or other opinion, national or social origin, property, birth or other status. It means it is a secular virus, if it is a secular virus its prevention should be globally regardless of any kind of factors and influences. Henceforth, this virus globally recognized by the WHO as a pandemic.

The COVID 19 Pandemic has serious effect on rights of human beings generally economics, livelihood, education, culture, politics and society and particularly the health of every individual. Every kind of human rights of human being has influence by the COVID 19. Thus, on March 11, 2020 the World Health Organization (WHO) declared that an outbreak of the viral disease COVID 19 first identified in December 2019 in

[3]Human Rights Council discussed human rights applications of the COVID 19 Crisis with its Special procedure mandate holds as originally published on 30 April 2020.

[4]Basic Law of Federal Republic of Germany: 1949 Article 2 (1)

[5]WHO Director General Media Briefing March 11, 2020

[6]Ibid

Wuham, China, had reached the level of a global pandemic. Citing concerns with "the alarming level of spread and severity". The WHO called the government to take urgent and aggressive action to stop the spread of virus[7].

The global and national COVID 19 responses have presented unique and rapidly shifting challenges and human rights of the people around the world. As countries identify ways to address COVID 19 integrating human rights protection and guarantees into our shared responses is not only a moral imperative, it is essential to successfully addressing public health concern.[8] United Nations Gender Equality Measures on COVID 19 report, rebels that 70% women and girls are affecting by pandemic, they are sick at home.[9] They are at increased risk of infection and loss of livelihood, existing trends point to less access to sexual and reproductive health and rise in domestic violence during crisis. It is in categorically in violation of human rights of women worldwide. Women who have under the reproductive cycle are suffering the health protection and economic crisis. They have serious problem of their livelihood. COVID 19 Pandemic is violating the human rights especially of women. In the same way people who are homeless, refugee, migrants, and prisoners also the victim of COVID 19 pandemic.[10]

World Health Organization has very important role to protect health of deserve class who has no resources during the COVID 19 Pandemic. A comprehensive, ethical guidance and expertise contribution of the World Health Organization is required to be perform by the all-human beings of the global society.

3. CONTRIBUTION OF GENERAL ASSEMBLY

In modern society and latest concept of human rights is originated by the Charter of United Nations.[11] Preamble of the Charter asserts that "we the people of the United Nations determined "to affirm faith in fundamental rights, in the dignity and worth of the human person, in the equal rights of the women and men". Article 3(b) of the Charter imposed the responsibilities on the General Assembly of the United Nations that "General Assembly shall initiate studies and make recommendations for the purpose of promoting international co-operation in the economic, social cultural, educational and health fields and assisting in the realization of human rights and fundamental freedoms for all without distinction as the race, sex, language or religion". It is also the duty and responsibility of Economic and Social Council that to set up commission in economic and social fields and for the promotion of human rights and such other Commissions as may be required for the performance of its function.[12] Due to the efforts of the Social Council Universal Declaration of Human Rights has framed and General Assembly have

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[7]Human Rights Dimensions COVID 19-Response.

[8]Supra Note 5.

[9]UN Gender Equality Measures in COVID 19 Response available at https://www.unwomen.org /en/news/infocus/in-focus-genderequality-in covid-19- response on 20th August 2020.

[10]UNHRC/OM, OHCHR and WHO joint statement on right to health of refugee, migrant and stateless persons must be protected in COVID 19 response available at https://www.ochr.org/EN/news events/pages/displynews.aspx

[11]Charter of the United Nations was signed on 26th June 1945, in San Francisco and it came into force on 24th October 1945. The statute of the International Court of Justice is an integral part of Charter.

[12]Charter of United Nations 1945; Article 68

adopted and proclaimed it by resolution No. 217 A (III) on 10 December 1948[13]. Remedial forum for the enforcement was Human Rights Commission at International level, but now it has been changed by the United Nations General Assembly on 15th March 2006 by resolution No. 60/251 created Human Rights Council.[14]

The efforts of the United Nations for the protection and promotion of the human rights are from its inception and during COVID 19 Pandemic, it has played very effective role and laid down some norm for the same. In these norms in this centric point is that no discrimination should be made by any member state. Maximum availability of resources at national and international to ensure availability, accessibility and quality of health care as a human right to all without discrimination including other than COVID 19.

Six norms and ways as laid down by United Nations for the protection and safeguards of human rights are essential for the guidelines of member states.[15] These areas-

a) In new report the United Nation wants of "aggressive cyber-policing and increased online surveillance during lockdown".

b) In the beginning most of the nations closed their borders, making no exceptions for people seeking asylum; there are also increased reports of domestic abuse the globe.

c) United Nations calls for richer countries to help proper ones overcome the disease to lessen the need for punitive lockdown.

d) Threats due the virus to people of global society.

e) No country can beat Novel COVID 19 Pandemic alone; therefore, global cooperation as a family is essential.

f) When we the people of world community will recover, we must be better as we were before. Secretary General Mr. Guterres observed about the progress and protection of human rights after recovery from COVID 19.

Our shared human condition and values must be source of unity, not division. We must give people hope and vision of what the future can hold. The human rights system helps us to meet the challenges, opportunities and needs of 21st century, to reconstruct relation between people and leaders; and to achieve the global stability, solidarity, pluralism, and inclusion on which we all depend. It points to the ways in which we can transform hope into concrete action with real impact on people's lives. It must never be a pretext for power or politics. It is above both[16]. Global solidarity during pandemic is for rapid recovery and eradicating to dieses is in the interest of human society. World community as whole should treat it as challenge for the betterment and economic development.

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[13]Universal Declaration of Human Rights 1948 adopted in Paris, before its adoption there was a conference in 1947.

[14]The first session at the time of passing the resolution took place from 19 to 30 June 2006. The Human Rights Council also works with the UN special procedures established by the former Commission on Human Rights and now assumed by the Council. It meets for at least 10 weeks per year of the United Nations Office in Geneva, Switzerland usually taken place in March.

[15]https://www.humanrightscovidapril2020.pdf visited on August 24, 2020.

[16]Ibid.

4. HUMAN RIGHTS OF PRIVILEGED CLASS

Themost suffers by Novel COVID 19 Pandemic are physically challenge persons, pregnant women, children, aged persons, migrated labors, refugees, stateless persons, street vendors and domestic workers. Livelihood of human beings during COVID 19 is one of the main issues especially in those areas where there are contentment, micro contentment and lockdown zones. Main area of affected human beings and United Nations efforts can be discussed in summary manner in the following ways-

4.1. Human Rights of the Persons with Disabilities

United Nations General Assembly adopted its Convention on the Rights of Persons with Disabilities on 13th day of December 2006.[17] Human diversity and humanity is the top priority of the Convention. Development the physical and mental capacity is the goal and object of the Convention.During the COVID 19 at international level the following measures are taken to be consider by the member states for protection of human rights of persons with disability-

a) The people with disabilities are not only facing greater risks from COVID 19 but they also are disproportionately affected by response measures, including lockdowns. To address this double risk, United Nations High Commissioner for Human Rights needs to be engagedpersons with disabilities in the COVID 19 response, adapting plans to address their needs.[18]

b) People with disabilities are in danger in their own homes,where access to facilities are limited due to lock down, and some may suffer greatly from being isolated and confined. It requires taking specific steps for preventing further harm.

c) Persons with disabilities facing even greater threats in institution, as care facilitieshave recovered high fatality rates from COVID 19and horrific reports have emerged of neglect during the pandemic. Now time is to support community-based arrangements wherever possible.

d) Access on line education by persons with disabilities is also concern to promote human rights of those persons by providing suitable technical support.

e) Medical decisions need to be based on individualized critical assessments and medical need and not on age or other characteristics such as disability.[19]

The above-mentioned norms for the protection of human rights of the persons with disabilities as laid down by the United Nations High Commissioner are targeted measures for implementation by the member states during the COVID 19 Pandemic.

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[17]Object of Rights of Persons with Disabilities Convention 2006 is to provide equal opportunities, respect for inherent dignity, individual autonomy, non-discrimination, accessibilities, equality between men and women, respect to children, full realization of human rights and fundamental freedoms etc to the persons who are physically challenges. Beside the convention there is One Optional Protocol. Fifty articles are in Convention and eighteen articles are in Optional Protocol.

[18]United Nations High Commissioner for Human Rights Reports 30 April 2020: Michelle Bachelet said about the protection of persons with disabilities during COVID 19.

[19]UN High Commissioners on 30th April 2020 as Geneva Guidance for the human rights of persons with disabilities. Major concern and setout key action in the context of pandemic. rcolville@ ohchr.orgjroerence@ohchr.org

4.2. Human Rights of Pregnant Women

During the corona period most, affectedpersons are pregnant women, because a fetus who is in the womb of the mother may be affected and life of both are required to be protected. Though for the protection of the women various international and national human rights legal instruments are in force[20]. However during this pandemic period no right and facilities as it was providing before the pandemic, not possible and practical.

The health of pregnant women requires to be protected either during pandemic or otherwise. COVID 19 pandemic is not affecting only the health of pregnant women but it is affecting all the human rights of women. It is a ramification on livelihood, social relation, political activities, religious functions, and cultural aspect of women. The impact on women of COVID 19 is in frontline and home, result of which is discrimination in distribution of limited resources. Beside this, gender-based violence, including domestic violence is increasing, and economic inequality is also the matter.[21]

United Nations women forum is monitoring and undertaking rapid assessment of violence against women and girls. COVID 19 in money countries including Bosnia, Herzegovina, Egypt, Fiji, Jordan, Lebanon, Libya, Malawi, Morocco, Palestine, South Africa, Tonga, and Vanuatu is affecting the rights of women. The safe and fair programme in Asia Pacific reports increased risk of sexual exploitation and violence by police and armed guards at border controls, and heightened risk of psychological violence to women migrant workers who lost their jobs and are no longer to support their families.[22] The health of pregnant is more sensitive required to be alert on pregnancy related warning signs. It is essential that take care of pregnant women and their babies. The remedy is stay home, avoid meetings outside the home. Always pregnancy delivery should be conducted in hospital by medical expert for safety and taking precaution of mother and child.

A survey of United State of America reveals that among 91412 women of reproductive age with Corona virus infections, 50% out of 8207 who were pregnant, more likely to end up in intensive care units (ICUs) than their non pregnant peers. Pregnant women were also 70% more likely to need ventilators, although they were no likely to die.[23] The figure of 50% infection by Corona is too much and affected women are in intensive care units is also very serious concern for the purpose of the violation of human rights of pregnant women.

Another survey of Sweden during 4 weeks in March and April, calculated infected pregnant women's rate is also a subject matter of serious concern. Admission compared

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[20]The preamble of the United Nations Charter states that "to reaffirm faith in fundamental human rights, in dignity and worth of human person, in the equal rights of men and women". Convention on the Elimination of All Forms of Discrimination against Women, in Indian Constitution Article 15 (3) provides that "Nothing in this Article shall prevent the state from making any special provision for women and children". Article 42 of the Indian Constitution also provides that for maternity benefits shall made by the state, competent legislature has already implemented this mandated by legislate the Maternity Benefit Act 1961, Article 47 also provides that "duty of the state to raise the level of nutrition and the standard of living and to improve public health" etc.

[21]Source is unwomen.org

[22]Ibid.

[23]Source- centers for Disease Control and prevention (CDC) late June.

with that of infected, non-pregnant women of reproductive age. The study is confined only on 13 corona virus infected pregnant women and 40 non pregnant infected womenwere admitted to Swedish ICU which is caused by a virus.[24] Pregnant women accounted for 5% US deaths, although they constitute about 1% of population. One study found pregnant women with severe acute respiratory syndrome (SARS) which is caused by a virus that is a close cousin of SARS-COV-2 were significantly more likely to be admitted to the ICU and to die than non-pregnant peers[25]. The safety of pregnant women is more important rather than the safety of normal person, thus, the human rights of those women should be protected and promoted with very cautiously.

4.3. Human Rights of Migrated Labors

Universal Declaration of Human Rights provides the provisions that everyone, as the member of the society, has the right to social security and entitle to realization, through national efforts and international co-operation and in accordance with organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.[26] The same declaration also gives the security to worker and work, it prescribes that "everyone, has the right to work, to free choice of employment to just and favorable conditions of work and to protection against the unemployment"[27]. Everyone, without any discrimination, has the right to equal pay for equal work.[28]

Everyone who works has the right to just and favorable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.[29] Everyone has the right to form and join trade unions for the protection of his interests.[30] Everyone has the right to rest and leisure, including reasonable limitation of the working hours and periodic holidays with pay.[31] Everyone has the right to standard of living adequate for the health.[32] Part III of the International Covenant on Economic, Social, and Culture Rights 1966 also provides about the human rights of worker which includes migrated labor that right to work, living work and safeguard of work, right to get technical, and vocational training, just and favorable condition of work and safety of health in work place.[33] These rights are for the workers but these human rights are also applicable on migrant labors.

International laws are in protection of the human rights of migrated labors and at present in pandemic crisis these laws should be followed by every member state of United Nations. These laws are not only in UDHR and CESCR but these are in the

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[24]Research paper on Sweden situation;known as "Acts Obstetricians et Gynecological Scandinavian".

[25]Ibid.

[26]Universal Declaration of Human Rights 1948, Article 22.

[27]Ibid Article 23 (1)

[28]Ibid Article 23(2)

[29]Ibid Article 23(3)

[30]Ibid Article 23(4)

[31]Ibid Article 24

[32]Ibid Article 25 (1)

[33]International Covenant on Economic, Social and Cultural Rights 1966, Article 6 & 7.

International Convention on the Protection of the Rights of the All Migrant Workers and Members of Their Family 1990[34]. In the Convention all the rights including nondiscrimination,[35] right to leave state[36] free from torture[37] freedom from salivary[38] right to thought and expression[39] right to equality[40] freedom from the expulsion[41] name and registration[42] same treatment as equal to nationalist[43] medical care and treatment[44] and trade union rights of the migrant labors and their families has also been protected.

On the same line other International legal Instruments are also in protection of labors, workers including migrated labors Convention on All form of Elimination of Discrimination against Women 1979 Article 11, Convention on the Elimination of Racial Discrimination 1965 Article 5, Convention on the Rights of Child 1989, Article 7,9,10.15,29,28,27&30, ILO force Labor Convention 1930 Article 9, ILO Freedom of Association and Protection of Rights of Organized Convention 1948 Article 2, ILO Discrimination (Employment and Occupation) Convention 1958, Article 2, ILO Minimum Age Convention 1973, Articles 1,2,&3, Vienna Declaration 1993, Paragraphs 24,33,&34, CariaProgrammed of Action 1994 Paragraph 10.10, 10.12, Copenhagen Declaration 2018, Paragraph 3&4, Copenhagen Programme of Action 1946, Paragraph 63, and Beijing Platform for Action 1995 Paragraph 58 (k), and 58 (l) and 125 (b) and (c) etc.

All persons regardless of their nationality, race, legal or other status are entitled to fundamental human rights and freedoms. This is applicable to all the labors and workers. Migrant labors and their familiesare also entitled to get these benefits of protection.

5. CONCLUSION AND SUGGESTIONS

Universal Declarations of Human Rights, International Covenant on Economic, Social and Cultural Rights, International Labour Organization Declaration and Conventions provides universal, indivisible, interconnected and inter dependent human rights of all human beings during COVID 19 Pandemic. Object and purpose of human rights is to protect everyone regardless of race, national or ethical origin, sex, religion, or any other status. Present situation of global society in crisis, human health and rights are required to be protected by cooperative efforts of all human beings. In a society where everyone is

[34]General Assembly Resolution 45/158of 18 December 1990

[35]International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families 1990, Article7

[36]Ibid, Article 8.

[37]Id Article 10

[38]Id Article 11

[39]Id Article 12

[40]Id Article 18

[41]Id Article 24

[42]Id Article 29

[43]Id Article 27

[44]Id Article 28

a member of family must cooperate to each other. At present for getting and enjoyment of full freedom it is essential to live safe, self-assessment, spiritual pleasure, educational enjoyment, and maintain social distance. It is the duty of everyone to observe and follow the guidelines of World Health Organization.

Every human being has the moral and legal duty to observe the guidelines of WHO for protecting and promoting the rights of labor, farmer, women, physically challenged persons, transgender, senior citizens, and children. Economic discrimination is requires to be removed, much help from Government and NGO is also requires to be provided in the interest of general public. Indian ancient culture should be followed. Advice of the medical officer should also be followed. Continuous exercise should be done by every human being on the basis of own choice as new dimension of human rights. The persons who are suffering by any kind of dieses like hypertension, diabetic, hart problem, kidney problem, liver problem and brocades etc.requiremore precautions. Sanitization and handwash should be done continuously. Migrated labors real and practical human rights should be protected with full spirit of social welfare, pregnant women, children and senior citizens human rights during pandemic period should also be protected with letter and spirit. Rights of human beings are not only bundle of enjoyment but a bundle of duty. Human rights are for cooperation and help to each other's, perform social duties and follow the concept of self-determination. All the human rights are for the faith in fundamental freedom, dignity and worth of human beings.

CLIMATE AND CRIME IN INDIA- A STUDY WITH SPECIAL REFERENCE TO THEORIES OF CRIME CAUSATION

Pramod Tiwari*
Prof. (Dr.) Pinki Sharma**

Abstract

It has been the endeavor of man to locate the cause of crime beside proscribing several behaviors as criminal from centuries together. The cause of crime has been located by the people depending upon their predominant socio-cultural structure. The earliest explanation of deviant behavior has been demonological explanation. It suggested that the cause of deviant behavior was devil and not the man himself. The emergence of utilitarian principle sought to explain such criminal behavior on the basis of utility, that is, pleasure and pain model. It emphasized that every human behavior is a 'rational choice' of man or the human behavior is the result of "free-will." Thus, a co-relationship between criminality and structure of human body is the outcome of Positive School of criminology. The atavistic approach located the cause in man itself. Italian criminologist Cesare Lombroso believed that human behavior is the result of physical structure. Further, Prof. E.H. Sutherland, the propounded of Sociological School of criminology, gave the theory of 'Differential Association'.

Key words

Climate, crime, body offences, property offences and crime causation etc.

INTRODUCTION

The origin of human civilization and the history of primitive societies reveal that there were certain factors which were responsible for crime causation. Human thinking, in those days, was dominated by religious mysticism (vague or ill-defined religious or spiritual belief) and all human relations were regulated through myths, superstitions and religious tenets. Meaning thereby, little attention was devoted to motive, environment and psychology of offender in causation of crime.[1]

In the era of Pre-Classical School of Criminology, a general belief was that the man by nature was simple and his actions were controlled by some super power. It was generally believed that a man committed crime due to the influence of some external spirit called 'demon' or 'devil'. During the middle of eighteenth century, i.e.,in era of Classical School of Criminology, *Beccaria and Bentham*, the pioneers of modern criminology, expounded their naturalistic theory of criminality by rejecting the omnipotence of evil spirit. They

*Assistant Professor, Law Centre-II, Faculty of Law, University of Delhi, Delhi-110007

**Professor, Law Centre-II, Faculty of Law, University of Delhi, Delhi-110007

[1]NatasaSemmens, JenniferDillane and JasonDitton, "Preliminary findings on seasonality and the fear of crime : A Research Note" (2002) 42 Brit. J. Criminol, 798-806 at 799

laid greater emphasis on mental phenomenon of the individual and attributed crime to 'free-will' of the individual.[2] They were much influenced by the utilitarian philosophy, which placed reliance on hedonism, namely, the "pain and pleasure theory". Further, the Neo-classists approached the study of criminology on scientific lines by recognizing that certain extenuating situations or mental disorders deprive a person of his normal capacity to control his conduct. Again, with the advance of behavioral sciences, the monogenetic explanation of human conduct lost its validity and a new trend was adopted in nineteenth century wherein an attempt had been made to demonstrate a co-relationship between criminality and the structure of human body and brain. This led to emergence of the Positive School of Criminology. Main exponents of this school were three Italian criminologists, namely; *Cesare Lombroso, RaffaeleGarofaloand Enrico Ferri*. They believed that human behavior is the result of his physical structure. In other words, structure determines the functions of individuals. This atavistic or hereditary approach of Lombroso was criticized by various scholars.[3]

Gabriel de Tarde, an eminent French criminologist, criticized Lombroso's arthrometric measurements and asserted that criminal behavior is the result of learning process. Tarde's assertion, which is known as 'Tarde's law of Imitation, on was that "crime, like other social phenomenon which starts as a fashion and becomes as custom".

Prof. E.H. Sutherland, an American criminologist, critis*-edLombrosian views in his theory of 'Different Association' and observed that by shifting attention from crime as a social phenomenon to crime as an individual phenomenon, Lombroso delayed for fifty years the work which was in progress.[4]

A. Lindesmith and Y. Levin in their work of 'Lombrosian Myth' in criminology' alleged that Lombroso's faulty assumptions were responsible for hindering the growth of scientific criminology for few more decades.[5]

An American Criminologist *Prof. E.H. Sutherland*, in Sociological School of Criminology propounded the theory of "Differential Association". In the crux of this theory, he opined that, "A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law."[6]

Further, in Socialist School of Criminology *William A. Bongerhas* contributed in explaining the inter-relation of crime and economic conditions. He stated that capitalism was one of the potential causes of criminality.

Again, in Eclectic School of Criminology, *Prof. Healy, Albert K. Cohen, Barnes & Teeters*[8] and *Donald Taft*[9] observed that it is not one or two factors which turn a man delinquent

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[2]GerhardJ.Falk, "The Influence of season on crime Rate" (1952) 43 Journal of Criminal Law Criminology and Police Science, 199-213 at 201

[3]A. Linde Smith and Y. Levin, "The Lombrosian Myth in Criminology" (1937) 42 The American Journal of Sociology, 653-671 at 659.

[4]E.H.Sutherland, Principles of Criminology (J. B. Lippincott co., 1955) p 56

[5]Supra Note 3, at 654

[6]Supra Note 4 at 78

[7]George B. Vold, Theoretical Criminology, Second Edition (New York : Oxford University Press, 1979) P. 253

[8]Barnes & Teeters, New Horizons of Crininology (New Delhi : Prentice Hall of India Pvt. Ltd., 1966) p. 186

[9]Taft, Criminology

but it is a combination of many more factors, which cumulatively influence him to follow criminal conduct.

Adolf Queteletand A.M. Guerreywere the eminent criminologists of France and Belgium, respectively. These scholars in their Cartographic School of Criminology, which is the subject matter of our study, have tried to search crime causation not inside the body, as *Lombroso, Enrico Ferri*.etc. rather outside the body i.e.,,somewhere in environment and in geographical condition.[10]

Apart from *Adolf Quetelet and A.M. Guerrey,* other scholars who attempted to demonstrate crime causation somewhere in environment, climate and geographical conditions, were *Montesquieu, Dexter, Prince Kropotkin, Baron and Ransherger, Carlsmith and Anderson, Defronzo, Feldman and Jarmon, Rotton and Frey and Perry and Simpson etc.*

On the basis of above theory, an attempt has been made, in this work to demonstrate the relationship between geographical conditions i.e., "climate or weather" and crime in Indian perspective. Against this background, the present study makes a humble attempt to analyse the relationship between climate and crime and to find out-Is there any relationship between climate and crime? While correlating weather and crime, data from India in general have been collected from the cases reported in the *Criminal Law Journal,2018* and the date/month mentioned in the cases have been taken. The researcher collected data from Ghazipur police Head Quarter regarding day and month of commission of offences of year 2018.

FUNDAMENTAL PERSPECTIVE OF THE RESEARCH

In this paper two main fundamental perspectives have been discussed namely: a) Jurisprudential Perspective and b) Constitutional Perspective.

A) JURISPRUDENTIAL PERSPECTIVE:

One of the fundamental Criminal Jurisprudence is Focauldian Governmentality Theory[11] which is also known as Preventive Model of Criminology or Peace Keeping Criminology in common parlance, contrary to Punitive Model of Criminology. As per this model of Criminology, the causes of criminality should be identified before the actual commission of the crime so that state could be able to control criminality in the society. In this paper the Focauldian Governmentality Theory works and researcher has tried to locate criminality somewhere in climate or weather inIndia. Reliance has been put forth upon findings of cartographic criminology. Further this paperalso focuses upon Risk Society Principle of Ulrich Beck which is based on surveillance model to control criminality. A humble suggestion has been made to the stack holders of criminal justice administration to have a deep and pervasive surveillance during extreme hotter and colder months.

[10]Piers Beirne," Adolf Quetelet and the origin of positive criminology" (1987) 92 The American Journal of Sociology, 1140-1169 to 1158.

[11]G. Mythen and Sandra Walklate, "Crimonology and Terrorism" (2006)46 Brit J Criminol, 579-596 at 579

B) CONSTITUIONAL PERSPECTIVE:

It is one of the common believe that 'Law in general and Criminal Law in particular has class character'. If the same is relied upon then it becomes utmost obligatory on the part of the state to prevent offences before it's actual commission. After the commission of crime there is chance of non-redressal of grievances of the poor victims hence amounts to denial of Access to Justice to him which is one of the fundamental principles under the Preamble of the Indian Constitution. Apex court has also raised a suspicion about co- operation by police during lodging of FIR by poor victims[12]. This amounts to arbitrary action by police officials, hence negation of Equality Principle and also unreasonable and unfair treatment by the state, thus violates articles 19 and 21 of the constitution. By locating the causes of criminality before actual commission,this paper will assist the state authorities to establish just and orderly society and to regulate public order[13], which is one of the main objectives under Directive Principle of State Policy. Paper also suggested for deep police surveillance during hotter days to prevent crime commission. Further the rules and procedure under criminal law[15] should be framed in such a way which would be able to control the criminality.

RESEARCH METHODOLOGY

Keeping in view the nature of problem analytical, descriptive, informative and evaluative methods has been adopted to draw the necessary inferences and conclusions. Materials for the present study have been collected from both primary and secondary sources. In general, Journals, Research Articles, Books and materials available on the websites have been consulted. Data for present study have been taken from the fact of the Criminal Law Journal 2018 and also the report from the police head quarter district Ghazipur, U.P. The year and district as aforesaid have been selected by the researcher on the basis of convenient sampling. On the basis of information obtained in Indian perspective, the findings of scholars of Cartographic School have been verified.

CLIMATE AND CRIME:THEORETICAL PERSPECTIVE

"Social environment is the heat in which criminality breeds".

-Lacassange'[16]

The climatic effect on crime can well be understood at international perspective after studying the Cartographic School of Criminology because this school evaluates crime on the basis of climate and temperature etc.

The Cartographic School of crime causation sees crime as the expression of the environmental influence. This school considers that the geographical surroundings determine the culture of community concerned, and this culture may vary according to

[12]Lalita Kumari v. State of U.P.(2014)2 SCC 1

[13]Entry I List II, 7thSchedule,TheConstitutoion of India,1950

[14]Entry II List II, 7th Schedule, The Constitution of India,1950

[15]Entry I List III, 7th Schedule, The Constitution of India,1950

[16]Ram Ahuja, VivechnatmakAparadhsastra (Jaipur : Rawat Publication, 1998) p. 65

the environment. Unfavorable social conditions may be responsible for criminality. Social conditions may be linked with the ecology or the geographical surroundings of the people concerned[17]. The basic tool of the social ecologists is a "social map" showing the geographical distribution of the phenomenon under investigation, i.e., crime and especially their relative frequency in different kinds of natural area.

Montesquieu, Adolf Quetelet and A.M. Guerrey, Dexter and Kropotkin etc[18]. are the proponents of this school of criminology, who brought before us some idea about relationship between climate and crime-Montesquieu in his book, *Spirit of Law, 1784*, was of the view that criminality increases as one approaches the equator and drunkenness is more prevalent as we approach the poles. In this way Montesquieu gave his own thesis about the effect of climate on crime.[19]

Adolf Quetelet and A.M. Guerrey were the leaders of this school in France and had a large number of followers in France, England and Germany. The school flourished from about 1830 to 1880. Later Yale Levin and Alfred Lindesmith did extensive research on it.[20]

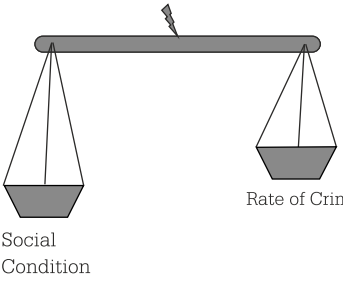
Quetelet and Guerrery were of the view that -[21]

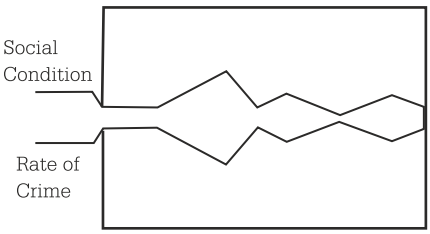
I) In favorable social conditions crime are lesser
ii) In unfavorable social conditions crime are higher.

It means, social condition is inversely proportional to crime rate.

Meaning thereby (Social condition) $\frac{1}{\text{crime rate}}$

These can be well understood by following figures-





iii) Weather having close relationship with the nature of crime. In this regard Adolf Quetelet and A.M. Guerrey said-

a) Crime against person is more in warm climate

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[17]GeorgeB.Vold, Theoretical criminology, Second Edition (New York : Oxford University Press, 1979) p. 23

[18]E.H. Sutherland, Principles of Criminology (J.B. Lippincott co., 1955) p. 53

[19]Piers Beirne, "AdolfQuetelet and the origine of positive criminology" (1987) 92 The American Journal of Sociology, 1140-1169 at 1157

[20]A.Lindesmith and Y.Levin, "The Lombrosian Myth in Criminology" (1937) 42 The American Journal of sociology, 653-671 at 658

[21]RuthShonleCavan, Criminology, Third Edition (New York : Thomas Y. Crowell Company, 1962) p. 686. See also Natasha Semmens, Jennifer Dillane and JasonDitton, "Preliminary findings on seasonality and the fear of crime : A Research Note" (2002) 42 Brit. J. Criminol., 798-806 at 801

b) Crime against property is more in cold climate

iv) In more congestion area, offences are more and in less congestion area offences are less.

v) Where the land is fertile, offences are less incomparison to places where land are less fertile.

vi) Where there is favorable rainfall, offences are less.

vii) Where natural resources are sufficient, offences are less.

Dexter an American scholar was of the view that there is close relationship between geographical conditions like climate, temperature etc. and crime. He said that violent crime is more in hotter days of the year.

Prince Kropotkin (1911) was a Russian scholar. He prescribed a formula for predicting homicides on the basis of climate. Take average temperature of the month, multiply it by 7, add to it average humidity, and multiply by 2 and you will obtain the number of homicides committed during the month. For this he gave a mathematical formula as-

2(7x + Y), Here X = temperature and
Y = humidity.

These views have however been criticized on the ground that there is no direct relationship between crime and geographical environment.[22]

Apart from these criminologists, various studies have been made to show relationship between weather and crime, however the relationship, between weather and crime and criminal behavior was not studied seriously until the 1960. After a series of riots in the United States sparked a popular belief that the causal factor was the summer heat. This belief was reinforced when the United States Riot Commission (1968) published a report showing that the majority of riots in 1967 began on days when the temperature was over 800F.

WEATHER AND CRIME: INDIAN PERSPECTIVE

Under this head an attempt has been made to analyse the relationship between weather and crime, mainly offences against body and offences against property under twenty Indian States. For this purpose, I have surveyed the Criminal Law Journal of year2018 and on the basis, offences reported there under this study have been made. The data of occurrence of offences either against the person or property has been taken from the fact of the case. The study has been made for year 2018. In this study year has been divided into three seasons, namely- 1) Summer, 2) Rainy and 3) winter and each season have been studied under two heads namely- a) India in general and b) Individual State in particular. Further, for each and every year three tables of crime data have been made for all the aforesaid seasons. Again, the analysis of these crime datahas been made to see a relationship between climate and crime.

[22]DonC.Gibbons, Society, Crime and criminal Carrers : An Introduction to Criminology, Third Edition (New Delhi : Prentice Hall of India Pvt. Ltd., 1978) p. 132.

Offences against Body and Property during summers for year 2018 (March to June) [Table No. 1]

Offences/States	Offences against Body							Offences against Property					
	Murder	Rape	Kidnapping abduction	Grievous Hurt	Dowry Death, Cruelty	Total in number	Total in %	Theft	Extortion	Robbery	Dacoity	Total in number	Total in %
Andhra Pradesh	1	1	0	0	0	2	0.8%	1	0	1	1	3	2%
Assam	8	10	2	1	3	24	9.8%	1	0	3	6	10	6.7%
Bihar	10	12	3	0	3	28	11%	5	1	6	12	24	16%
Chattisgarah	1	1	1	1	1	5	2%	1	0	1	2	4	2.6%
Delhi	2	5	1	0	2	10	4%	0	1	1	2	4	2.6%
Gujarat	2	3	1	0	1	7	2.8%	1	1	2	2	6	4%
Himanchal Pradesh	5	4	1	1	1	12	4%	2	0	1	3	6	4%
Jammu & Kashmir	13	7	5	0	2	27	11%	7	0	0	7	14	9.3%
Jharkhand	6	5	3	1	2	17	6%	2	0	1	3	6	4%
Karnataka	1	2	2	0	1	6	2.4%	1	0	1	2	4	2.6%
Kerala	0	1	1	0	2	4	1.6%	1	0	1	0	2	1.3%
Madhya Pradesh	3	2	1	1	3	10	4%	3	1	1	5	10	6.7%
Maharastra	8	3	1	1	1	14	5.7%	1	0	1	2	4	2.6%
Orissa	5	3	1	0	3	12	5%	0	1	3	0	4	2.6%
Punjab & Haryana	1	0	1	0	3	5	2%	2	0	1	2	5	3.3%
Rajasthan	10	4	3	1	1	19	7.7%	2	1	2	6	11	7.3%
Tamil Nadu	2	1	0	0	0	3	1.2%	1	1	1	1	4	2.6%
Uttaranchal	3	5	2	0	2	13	5.3%	2	0	2	4	7	4.6%
Uttar Pradesh	8	2	0	0	3	14	5.7%	5	0	5	3	14	9%
West Bengal	6	3	0	1	0	10	4%	1	1	2	3	7	4.6%
						244	62%					149	38%

Note- Total No. of offences from 1 March to 30 June = 244+149= 39

Total No. of offences against body from 1 March to 30 June= 244 (62%)

Total No. of offences against property from 1 March to 30 June= 149 (38%)

Offences against Body and Property during rains for year 2018 (July to October) [Table No. 2]

Offences/States	Offences against Body							Offences against Property					
	Murder	Rape	Kidnapping abduction	Grievous Hurt	Dowry Death, Cruelty	Total in number	Total in %	Theft	Extortion	Robbery	Dacoity	Total in number	Total in %
AndhraPradesh	1	0	1	0	0	2	1%	1	1	1	0	3	2%
Assam	10	7	1	1	0	19	9.9%	3	2	2	2	9	6%
Bihar	11	10	2	0	4	26	13%	7	2	9	7	25	13%
Chhattisgarh	3	2	1	0	1	7	3.6%	1	0	2	2	5	3.4%
Delhi	3	3	0	0	0	6	3%	0	0	3	1	4	2.7%
Gujarat	2	1	0	0	1	4	2%	1	0	2	0	3	2%
HimanchalPradesh	1	3	0	0	2	6	3%	2	1	0	0	3	2%
Jammu & Kashmir	10	5	1	1	2	19	9.9%	1	1	2	9	13	8.9%
Jharkhand	4	5	1	0	1	11	5.7%	5	0	3	1	9	6.1%
Karnataka	0	0	2	1	1	4	2%	1	2	0	0	3	2%
Kerala	1	0	1	0	0	2	1%	2	2	0	0	4	2.7%
MadhyaPradesh	2	1	0	0	1	4	2%	5	1	3	2	11	7.5%
Maharashtra	6	4	1	1	2	14	7.3%	2	0	6	4	12	8.2%
Orissa	3	4	1	0	3	11	5.7%	5	1	3	1	10	6.8%
Punjab & Haryana	1	1	0	0	3	5	2.6%	2	0	0	0	2	1.3%
Rajasthan	5	6	2	0	4	17	8.9%	5	0	5	0	10	6.8%
Tamil Nadu	2	3	1	0	0	6	3%	3	1	0	0	4	2.7%
Uttaranchal	4	5	0	0	1	10	5%	3	0	2	0	5	3.4%
UttarPradesh	8	5	2	1	2	18	9.4%	6	1	4	8	19	13%
West Bengal	1	1	1	0	2	4	2%	1	0	2	0	3	2%
						191	56%					146	44%

Note- Total No. of offences from 1 July to 31 October 191+ 146 = 337
Total No. of offences against body from 1 July to 31 October = 191= (56%)
Total No of offences against property from 1 July to 31 October = 146 = (44%)

Offence against Body and Property during winter for year 2018 (November to February) [Table No. 3]

Offences/States	Offence against Body							Offence against Property					
	Murder	Rape	Kidnapping Abduction	Grievous Hurt	Dowry death Cruelty	Total in number	Total in %	Theft	Extortion	Robbery	Docoity	Total in Number	Total in %
AndhraPradesh	2	1	1	0	2	6	2.4%	0	0	1	2	3	2%
Assam	5	6	3	1	5	20	8.2%	2	0	3	3	8	5.3%
Bihar	10	11	2	0	5	28	11.5%	8	2	6	11	27	18%
Chhattisgarh	5	5	2	0	2	14	5.7%	1	0	2	0	3	2%
Delhi	5	4	0	0	0	9	3.7%	1	0	0	3	4	2.6%
Gujarat	3	2	1	0	2	8	3.3%	0	0	1	4	2	1.3%
HimanchalPradesh	0	2	2	0	0	4	1.6%	3	1	2	3	9	6%
Jammu & Kashmir	10	8	3	2	0	23	9.5%	1	0	6	2	9	6%
Jharkhand	3	4	0	0	3	10	4%	5	1	3	0	9	6%
Karnataka	2	1	6	1	1	11	4.5%	1	0	0	0	1	0.6%
Kerala	2	2	1	0	0	5	2%	1	0	2	2	5	3.3%
MadhyaPradesh	3	4	0	0	4	11	4.5%	10	1	2	1	14	9.3%
Maharashtra	6	6	2	0	2	16	6.6%	3	0	6	0	9	6%
Orrisa	3	5	1	1	1	11	4.5%	1	2	1	1	5	3.3%
Punjab&Hayana	1	1	1	0	0	3	1.2%	1	2	0	0	3	2%
Rajasthan	10	11	1	0	4	26	10.7%	8	1	3	2	14	9.3%
Tamil Nadu	1	3	1	1	0	6	2.4%	1	1	1	1	4	2.6%
Uttaranchal	2	5	0	0	0	7	2.8%	2	1	3	0	6	4%
UttarPradesh	8	5	0	0	4	17	7%	7	2	6	5	19	12%
West Bengal	2	3	1	0	1	7	2.8%	0	1	1	0	2	1.3%
						242	61%					150	39%

Note- Total No. of offences from 1 November to 28 February = 242 + 150 = 392
Total No. of offences against body from 1 November to 28 February=242 (61%)
Total No. of offences against property from 1 November to 28 February = 150 (39%)

Year 2018: Climate and Crime- An analysis

The of data of offences has been collected from the Criminal Law Journal. The data ofoccurrence of offence either against the person or the property has been taken from the fact of the case. This data is of twenty States of the country. An attempt has been made to study the variation of crime rate with respect to climate. For this purpose, the whole year has been divided into three seasons namely, summer, winter and rains. The study of climatic effect on crime has been made under two heads for each respective season-

a) India in general, and

b) Individual States

1- Summer- Table No. 1 of year 2018 is for summer season which comprises from 1 March to 30 June and this table has been analyzed under two heads as stated above.

a) India in general-As per data of crime reported from 1 March to 30 June, the total number of offences are 393, out of which 244 are offences against body which comprises 62% of the total offences and 149 are offences against property, which comprises 38% of the total offences.

Thus, it can, therefore, be said that in summers offences against body has been more in comparison to offences against property.

b) Individual States- As per data of crime rate in summers of year 2018, it has been observed that in some States like Assam, Delhi, Jammu and Kashmir, Karnataka, Maharashtra, Orrisa, Rajasthan, and Uttaranchal the number of offences against body is more incomparison to property offences whereas in remaining States offences against property are more in comparison to offences against body. Thus, there is no uniform correlation as to temperature and crime because in some States, irrespective of their average temperature, offences against body are more and, in some States, offences against property are more in the same season.

2-Rains- Table No. 2 of year 2018 is for the offences during the rainy season running from 1 July to 31 October and this table has been analyzed under following two heads:

a) India in general-As per the data of crime from 1 July to 31 October, 2018, the total number of offences are 337 out of which offences against body are 191, which comprises 56% of the total offences committed during this year and 146 are offences against property which comprises 44% of the total offences. Thus, the offences against body are more in comparison to offences against property in India during rainy season of year 2018.

b)Individual States - As per the data of crime of rainy season it has been observed that offences against body in States like Assam, Delhi, Himanchal Pradesh, Jammu and Kashmir, Rajasthan, Tamil Nadu, and Uttaranchal are more and in remaining States offences against property are more in the same season.

3)-Winter- Table No. 3 of year 2018 in for winter season which runs from 1 November to 28 February and this table has been analyzed under following two heads.

a) India in general-As per the data, the total number of offences in the country are 392 out of which offences against body are 242 which comprises 61% of the total offences and offences against property are 150 which 38.2% of the total offences committed during the winter season of year 2018

b) Individual States in particular- As per the crime data, it has been observed that the number and percentage of offences against body in States like Andhra Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Jammu and Kashmir, Karnataka, Maharashtra, Orissa, Rajasthan and West Bengal are more in comparison to offences against property and in remaining States the offences against property are more in comparison to offences against body in the same season.

Conclusion - After analyzing the crime data for the year 2018 of all the seasons it is clear that in general the offences against body are more and offences against property are less in all seasons but at the same time in some States offences against body are more in all seasons while in some States offences against property are more in all seasons. It may therefore be summarized that there is no definite relationship between temperature and the crime.

Adolf Quetlet let and A.M. Guerrywho were the leaders of Cartographic School of Criminology, contended that crimes against persons were more prevalent in warm climates and crime against property were more prevalent in cold ones; may be true for their own countries i.e., in France and in Belgium but not for India, so far as our study of year 2018 is concerned.

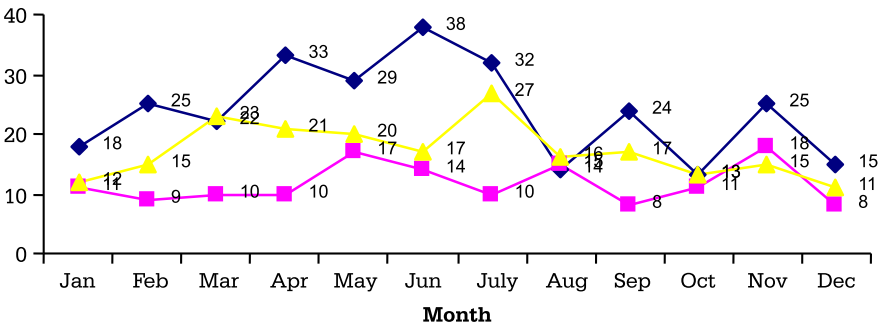
EFFECT OF WEATHER ON CRIME: A STUDY OF DISTRICT GHAZIPUR, UTTAR PRADESH

Under this head an attempt has been made to analyse a relationship between weather and crime, mainly offences against body and offences against property in District Ghazipur, Uttar Pradesh. For this purpose, a crime data for the year 2018 have been obtained from the office of Superintendent of Police, District Ghazipur, Uttar Pradesh and on the basis of aforesaid data this study has been made. In this study, analysis regarding climatic effect on crime has been made for the year 2018.The data have been studied month wise. Further, offences are classified into three categories, namely, offences against body, offences against property and other offences. The available data have been shown in the crime table and its graphical representation.

Offences against body and property is District Ghazipur, Uttar Pradesh for the year 2018

Months/Offences		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	
Body offences	Murder	2	4	4	4	6	9	1	5	4	2	4	2	
	Rape	0	1	0	0	1	0	0	0	1	0	0	0	
	Grievous Hurt	11	9	10	17	19	17	26	5	9	7	14	9	
	Kidnapping													
Abduction	0	1	1	1	1	0	1	0	1	0	0	0		
	Culpable													
Homicide	1	1	1	2	1	2	1	2	2	0	2	0		
307/308														
Indian penal code	2	6	4	7	0	4	3	1	6	2	4	4		
	Dowry death	2	3	2	2	1	4	0	1	1	2	1	0	
	Total	18	25	22	33	29	38	32	14	24	13	25	15	288
Property offences	Theft	7	7	4	9	7	10	4	7	3	8	7	4	
	Robbery	2	1	2	1	1	2	2	2	2	1	4	2	
	Dacoity	0	0	0	0	0	0	0	0	0	0	0	0	
	399/402													
Indian penal code	0	0	1	0	0	0	0	0	0	0	0	0		
	House breaking	2	1	2	0	9	2	2	6	3	2	7	2	
	Total	11	9	10	10	17	14	10	15	8	11	18	8	141
Other offences	Total	12	15	23	21	20	17	27	16	17	13	15	11	207

Offences against body, offences against property and other offences in District Ghazipur, Uttar Pradesh for year 2018- A graphical representation



Weather and crime for year 2018 of District Ghazipur, Uttar Pradesh

As per the data of crime of District Ghazipur, Uttar Pradesh for the year 2018 as shown in the Table the total number of offences reported during the year are 636, out of which offences against body are 288, which comprises 45% of the total offences while 141 are offences against property, which comprises 22% of the total offences reported during the year. It means offences against body are approximately two times in comparison to offences against property during the year ofDistrict Ghazipur, Uttar Pradesh. The data for offences against human body and the property have been analyzed as under:

i) Offences against Body-As per crime data of crime of year as shown in the Table, offences against body are higher in summers namely- April, May, June, and July and lesser in winters namely, October, December and January. The number of offences committed against human body in summer constitute 46% of the total offences, while this figure is 16% in winter.

It can, therefore, be said that a definite relationship exists between the body offences and the weather, as body offences are higher in summers and lesser in winters.

ii) Offences against Property-As per data of crime for the year, 2018 as show in the Table, offences against property are higher in some winter months; namely in January and November and are also higher in some summer months; namely in May, June and August.

The study for the year therefore, suggests that no definite relationship exists between weather and the property offences at may be surmised that the offences against property is more during the months when property is available after harvest etc.

Variation of body offences, property offences and other offences with respect to weather of year 2018, as stated above, has been shown in graph (see graph). Blue line is about variation of offences against body, red line is for variation of offences against property and yellow line is for variation of other offences with respect to weather, of District Ghazipur, Uttar Pradesh for the whole year of 2018.

It may, therefore, be said that the effect of weather on body offences for District Ghazipur, Uttar Pradesh is similar as suggested by the scholars of Cartographic School of

Criminology. At the same time effect of weather on property offences is not similar as suggested by those scholars.

Thus, the entire study of year 2018, District Ghazipur, Uttar Pradesh regarding effect of weather on crime, reveals that weather is a factor which affect crime rate, although it may notbe the soleone.

CONCLUSION

Sincelong it has been the endeavor of man to locate the cause of crime beside proscribing several behaviors as criminal. The cause of crime have been located by the people depending upon their predominant socio-cultural structure. Thus, the attempt to locate the cause has been from super-mundanic to mundanic affairs depending upon the knowledge of man about himself and his surroundings and circumstances. The earliest explanation of deviant behavior has been demonological explanation. It suggested that the cause of deviant behavior was devil and not the man himself. The emergence of utilitarian principle sought to explain such criminal behavior on the basis of utility, that is, pleasure and pain model. It emphasized that every human behavior is a 'rational choice' of man or the human behavior is the result of "free-will".

Again, with the advancement of behavioral sciences, a new trend emerged to demonstrate the cause of criminality on objective basis i.e., Positivism. Thus, a co-relationship between criminality and structure of human body is the out come of Positive Schoolof criminology. The atavistic approach located the cause in man itself. Italian criminologist Cesare Lombroso believed that human behavior is the result of physical structure. Further, Prof. E.H. Sutherland, the propounder of Sociological Schoolof criminology, gave the theory of 'Differential Association' and observed that : A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law.

Further, a Socialist thinker, William A Bonger, contributed that capitalism was one of the potential causes of criminality. In Multiple Factor Approach, the criminologists like Prof. Healy and Albert K. Cohen observed that it is not one or two factors which turn a man delinquent but it is the combination of many more factors. In Cartographic School of Criminology, the scholars like Quetelet and Guerrey, Montesquieu, Dexter, Kropotkin and many others have tried to search the cause of crime somewhere in the environment and the geographical conditions which is the subject matter of this study. To them, there is a necessary causal relationship between the climate and geographical conditions on the one hand and crime on the other.Our entire study as well as the research works conducted under various countries reveal that climate is a factor which affects crime rate although it may not be the sole one.

Various research works which are conducted in U.S.A., England Hong Kong and other countries with regard to heat and crime, reveal that high temperature is more or less responsible for high rate of offences relating to body. This study of effect of temperature on body offences, with respect to twenty States of the country as well as of District Ghazipur, Uttar Pradesh, suggest the similar result that offences against body are higher in warm season in comparison to cold one.

Further, research works of abovenamed countries with regard to heat and property offences reveal that during warm climate, property offences are less.This study of effect

of temperature on property offences, with respect to twenty states of the country, as well as of the District Ghazipur, Uttar Pradesh produce the general result that during 'hotter days' property offences are less but at the same time in some summer months like April, May, October and November, property offences are more. It may, therefore, be conjectured that in months like April, May, October and November-- property is available with the victim giving rise to an opportunity to commit such offences.

The research works conducted in various countries with respect to effect of cold weather on crime reveal, that property offences are more in cold weather. It is not because of emotional upsets rather to obtain the additional goods needed to stay alive during cold weather (warm clothing and heating etc.) Our study regarding the effect of cold weather on crime in twenty states of the country as well as of District Ghazipur, Uttar Pradesh, produce the result that body offences are less in winters and property offences are generally seen more in winters but at the same time, it has been seen more in some summer months also. It may be due to availability of property with victim during harvesting etc. It may, therefore, be said that there is no definite relationship between property offences and cold weather.

The research works conducted in various countries show no definite relationship between rain and crime of any kind what so ever. Similarly, our study regarding effect of rains on crime shows no definite relationship in India in general and various states in particular including the case of District Ghazipur, Uttar Pradeshas well.

Lastly, it can be generally summarized that body offences are higher in hotter days, property offences are higher in some cold months and at the same time in some summer months as well. So far as body and property offences with respect to rainy season is concerned, no definite pattern is discernable.

E-COURT GOVERNANCE: A WAY FORWARD FOR EFFICIENT JUSTICE DELIVERY SYSTEM IN INDIA

Dr. Laxman Singh Rawat

Abstract

The National Judicial Data Grid statistics indicate Indian Courts are overburdened with total numbers of 32262508 cases pending across district Courts (as on April 24, 2020). This inordinate delay and slow disposal rate of cases raises serious issue of the quality to access conclusive and timely justice and pose challenge to Justice Delivery System in India. Since timely disposal of cases is essential for maintaining the rule of law and fulfilling Constitutional promises to avail justice to every citizen, the initiatives started with National e-Governance Plan (NeGP) with the Policy Mission to transform 'paper based' system to 'paperless' system in India. Under this Policy mission plan, ICT has been used in various functions like filing the schedules, posting of cases, grouping of cases and so on

Key words

E-Court, Governance, ICT, NeGP, Digital India and Justice Delivery System

I. Introduction

Indian Justice Delivery system in its slow and delayed paper based processes in courts contributes significant to pendency of cases. The present justice system is not able to deliver justice in time because of large number of backlog cases. As per data available on the 'National Judicial Data Grid' (NJDG) website on April 24, 2020, total 32262508 cases pending across district courts in different states. Out of these, 9367409 (29.03%) cases are pending for the category of less than three years and 4925602 (15.26%) cases are pending for over ten years.[1] This NJDG data report shows that justice delivery system is not abreast to meet out to respond new challenges with the institution of afresh cases. Further, it's not capable to settle a significant numbers of cases. The existing serious backlogs issue is, therefore, getting aggravated on regular basis. It will lead to a deviation of the Constitutional promises of access to get justice in time and abrasion of the rule of law and good-governance.[2]

*Assistant Professor, Faculty of Law, Banaras Hindu University, Varanasi-221005, India.

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[1]'National Judicial Data Grid (District and Taluka Courts of India)', available at: https://njdg.ecourts.gov.in/njdgnew/index.php (accessed on 24/04/2020).

[2]Government of India, Arrears and Backlog: Creating Additional Judicial (wo)manpower, Report No. 245, Law Commission of India, July, 2014, available at: https://lawcommissionofindia.nic.in/reports/Report245.pdf (accessed on 22/04/2020).

It may be noted that the vision of Digital India programme ensures that 'Government services are made available to citizens electronically through improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology', and thus launched 'e-Courts' project as one of the important outlets entitled 'Technology for Justice' of e-Kranti (NeGP 2.0). To achieve these goal and objectives of 'Digital India' programme, e-courts projects requires processes viz. digitalization of judicial decision, indexing of such electronic records for simple retrieval, authenticate electronic records and replacement of paper based records, digitalization of current records and introduction of electronic filing of the case, plaint, petition, appeal, application, authentication of affidavits electronically, *vakalatnamaas*, documents having manual signatures compatible with bio-metric, electronic Court fees Payment, and procession fees etc., electronic filing receipt generation, e-scrutiny and verify electronic filed documents through the court registry, preparation of the online case filing while utilizing document management system and this must be linked with the case management system, etc.

This all started with the move from paper-based to paper-less digital environment to communicate and record ideas, cannons, concepts, arguments, statements, presentations etc. The inadequacy of a paper-based environment make it an necessary to make over our justice delivery processes viz. pleading, recorded evidences, judgments, orders, injunctions, which are documented and availed on digital platform. Since the paper based procedures in courts contributes significant to pendency of cases, the use of ICT improves this system through inducting ICT modules to improve efficiency and speed up the processes which eventually make transparent environment. ICT has been used in diverse aspects for instance schedules filing, posting, grouping of cases etc. The wide utilization of ICTs can certainly help to improve the efficiency and speed of the system.

Conventionally, all judicial work, judicial and administrative, has been based on paper record. The cyber world move away from paper based system as a mode to communicate and records ideas, cannons, concepts, arguments, statements, and presentations etc., associated with the inadequacies of a paper-based environment. In order to meet out present day challenges, introduction to information and communication technology in courts viz. electronic courts which are paperless courts can be a good solution. An e-court requires following processes viz. electronic filing, e-form filled online via internet or kiosks centers in the court or through media utility.[3]

The uses of ICT & digitalization of records and establishment of e-courts guide in this new paradigm of changing modus of court functions. It can ease the necessity to provide the infrastructure in the form and brings efficiency to speed up the file processing at every phase starting with filing a case to disposal of the case and archival records. It may also make a progressive change in the work pattern of the registry which go ahead to enhance efficiency, speed and productivity. This eventually, provides timely and cost-

[3] 'Court Development Planning System: version 2.0', Court Development Planning System, 'Report of a Sub-Committee of the National Court Management Systems Committee', Available at: https://main.sci.gov.in/pdf/NCMS/Court%20Development%20Planning%20System.pdf (accessed on 25/05/2020), pp.44-46.

effective services which provide great relief to the litigants. However, this required collaborative and concerted effort from every corner of the justice delivery system, primarily, by judges and advocates.

For the e-court development strategies, it is important to make provisions for the nut and bolt of this new regime i.e. hardware and software. From the Hardware standpoint, data servers devices; high speed Local Area Network processer; quality scanners; speedy internet connectivity; court required necessary technology viz. computers, Laptops, tabs, webcam, high quality LCD screens, electric power connection devices for advocates' laptops/tablets, good quality video conferencing and audio-video streaming facilities. On the other hand, from the Software standpoint, database open source; word, excel and power-point processing software (MS office); PDF Adobe software; digital signature software and custom document management software; online judicial references like Manupatara, SCC online etc.[4]

II. E-courts Project in India: A Journey from NeGP to Digital India

A. E-courts' project- Mission Mode Plan of NeGP

In Indian democratic setup, among other wings, Judiciary endeavors to transform its functional aspects through inducting tools and techniques of information and communication technology (ICT). As a part of National e-Governance Plan (NeGP), since 2007, e-courts plan operated as Integrated Mission Mode Plan for improving efficiency of Indian Judicial system under 'National Policy and Action Plan for Implementation of Information and Communication Technology in Indian Judiciary' (NPAPIICT), conceived by the Supreme Court e-Committee.[5]

This NPAPIICT Report had proposed three Phases for the implementation of e-Court Project. Inclusive several activities in the running phase proposed, various other activities are to undertaken in this project to make holistic approach for the ICT enablement of the Courts as per the vision of NeGP.[6] With the infrastructure, hardware and software deployment, most District Courts have been adequate to give fundamental services of filing, examining, scrutinizing, registration, disposal, cause-list generation and uploading orders/decisions under this project.[7]

Under this e-Courts Mission Mode Project of NeGP is to make ICT equipped district/subordinate courts of the country. Prime objective of the project is to provide structured services to litigants, advocates and judges lawyers and the judiciary through ICT induction in the Courts of India. The First Phase deals with the deployment of basic infrastructure necessary for ICT, covering various modules, like computer hardware,

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[4]Ibid.

[5]Supreme Court of India, Policy and Action Plan Document, Phase II of the E-Courts Project, January, 2014, p. 2-3, available at: http://supremecourtofindia.nic.in/ecommittee/PolicyActionPlanDocument-PhaseII-approved-08012014-indexed_Sign.pdf (accessed on 22/04/2020).

[6]Ibid.

[7]'E-Committee Supreme Court of India, Policy and Action Plan Document, Phase II of the E-Courts Project', January, 2014, p. 2-3, available at:http://supremecourtofindia.nic.in/ecommittee/PolicyActionPlanDocument-Pha.seII-approved-08012014-indexed_Sign.pdf (accessed on 22/04/2020)

software, LAN module and internet connectivity at each Court premises to advanced the ICT enablement of Supreme Court and High Courts, including computer, laptops, tablets, printers, internet connectivity at home and offices of judges and provide ICT training.[8]

'As a part of the Change Management programme, more than 14,000 Judicial Officers have been trained in the use of Ubuntu-Linux Operating System (for their laptops). This has been achieved by training 218 judicial officers from all over the country as Master Trainers in different locations around the country.'[9] 'Similarly, more than 4000 Court Staff have been trained in Case Information Software as System Administrators. This has been achieved through training 219 Court Staff as CIS Master Trainers (District System Administrators) at the Maharashtra Judicial Academy and the Chandigarh Judicial Academy.'[10] 'An exercise has been initiated by requesting every High Court to provide a Unique Identification Number (UID) to every Judicial Officer. The UID will be prefixed with two alphabets representing the State, as for example with motor vehicles. This information will be uploaded on the e-courts portal. This will assist the High Courts in maintaining an accurate record of all judicial officers.'[11] 'An exercise in Process Re-engineering has already commenced. All High Courts have set up Process Re-engineering committees to modernize the processes, procedures and Civil Court/Criminal Court Rules.'[12]

B. E-courts' project as a e-Kranti under Digital India Programme

E-kranti is an important pillar under the Digital India initiative, including mobile Governance under e-governance aim with to upheld Good Governance and rule of law in the country. The key approach shows in the Union Cabinet's vision entitled as 'Transforming e-governance for Transforming Governance'.'Technology for Justice' is one of the plan under e-kranti to interoperable Indian judicial system improving processes through various applications, viz. e-courts, e-police, e-prosecution and e-jails etc.[13]

Data provided below (on 1st March, 2016) shows that more than 95% of the required activities have been finalized. Implementation Status (1st March, 2016) are as follows- :[14]

S. No	Name of Modules	Status (01.03.2016)	Percentage of Completion
1	Readiness of Sites	14249	100.00
2	Installation of Hardware	13466	94.29
3	LAN Installation	13683	96.02
4	Software Deployment	13672	95.95

[8]Ibid.

[9]Ibid.

[10]Ibid.

[11]Ibid.

[12]Ibid.

[13]Government of India, 'Digita lindia, eKranti - Electronic delivery of services', available at: https://negd.gov.in/e-kranti (accessed on 25/05//2020).

[14]'eCourts Mission Mode Project (Phase-I)', available at: http://doj.gov.in/sites/default/files/Brief%20on%20eCourts%20Project.pdf (accessed on 20/05/2020).

Additionally, ICT infrastructure deployment process of the Supreme Court and High Courts has also been upgraded. It may be noted that laptops have been given to 14,309 judicial officers and uniform national application of Case Information System (CIS) software has been implemented. As part of the Change Management exercise, more than fourteen thousand Judges have been trained in the of *Linux* Operating Software; and more than four thousand Court personnel, employee have been trained in CIS software; the e-Committee has started the Process ReEengineering (PR) exercise; This Committees have been established in High Courts to examine and observe existing rules, processes, procedures and forms; Online video conferencing in courtrooms and jails premises. It was decided to provide video conferencing amnesties for 488 Court premises and 342 jails compounds out of 667 locations equipment has been delivered; special mentioned here is the National Judicial Data Grid has become functional and operated. This portal gives all information relating to details of case registration, cause list, case status, daily orders, and final judgments in the form of online services to litigants.[15]

The Second Phase of e-courts Mission Mode Project received the Government's approval. This Phase basically focuses on universal computerization approach to enhance ICT enablement, cloud computing uses, case records digitalization, availability of electronic Services as e-filing, online payment gateways and mobile payments gateways. It may be noted that the e-committee of Supreme Court after consultation with all the High Courts, approved by then Chief Justice of India. This project of Rs.1670 Crores has been approved for four years period or until the project is finalized. Some of the highlighting objectives of this e-court Phase II are as follows: about 5751 new courts' computerization; about existing 14,249 computerized courts with additional enhanced ICT enablement hardware; connecting all courts through WAN; citizen centric approach and facilities like 'Centralized Filing Centers'; e-Kiosks in each Court Complex; provision not covered under First Phase; 2500 Video Conferencing facility deployed; 800 jails ICT deployment; provide Cloud facility; solar energy system at Court premises; and hand-held devices and applications.[16]

This Phase designed a collaborative and consolidated all the initiatives and measures promised to be taken up and provide multi-platform services under the Charter of Services. These services include case registration, lists, status, and upload order/judgment. Further, e-filing, online-payment of court fees, email through process, hand held devices services, receipt of digitally signed judgments etc. Above mentioned the Charter of Services guide to provide litigant service centric under Second phase. One of the major advantages of digitalization of courts is 'automation of workflow management'. This ICT deployment is expected to enable the courts across country. This includes three major viz. the judiciary, litigants and advocates.[17]

III. 'Five Plus Free' Rule

It may be specifically mentioned here that 'National Court Management Systems Committee' in the year 2012 recommended "Five Plus Free" rule for Indian Judicial

[15] Ibid.

[16] Ibid.

[17] Ibid.

System on urgent basis. This rule simply prescribes free those cases having old more than five years, may address 27%[18] of cases which have more than five years pendency. Similarly, it's important to settle cases in each court in lesser time through reduction of average life cycle of cases, which contribute to reduce the total time spent in the judicial process in totality, eventually, in each court come down the average life of case that are not more than about one year.[19]

IV. Chief Justices Conference: Agenda Notes

The induction of ICT automation happening in courts provides to amend the procedures in the wake of transformed system to improve efficiency and responses of courts. It is an urgent need to revise the present rules, processes and procedures and to address the question that whether and how, due to this ICT adoption Judicial processes and procedures should be streamlined and reformed. Notably, in order to advance this present rules, processes and procedures, the justice delivery system requires improving and innovating current regulatory regime to speed up the rate of disposal of cases. It needs re-hauling, re-engineering, and re-examining the court processes.[20]

The ICT automation processes potential, expected to be continued in Second Phase of this e-courts plan and project, through which the re-engineering of judicial Processes and procedures will be finished to explore the automation processes meet out with recent advancement in science and technology. This Second phase Policy agenda not only provide automation in Judicial processes and procedure but also responsive towards the functioning of administrative processes concerning the Registry of the courts. In this connection each High Court is required to prompt to take up this work, complete and employee the re-engineering process forthwith.[21]

Further, a trio-Memorandum of Understanding among and between the Central Government, High Courts and State Governments, require State Governments to make certain maintenance and up keeping of the infrastructure, hardware and equipment targeted within this project.[22] In this connection ICT infrastructure and structure of the apex Court and High Courts have been advanced, as well computerization of courts work have been in progress. Under this e-courts project plan, in addition to basic ICT infrastructure in the district and subordinate courts, the activities also focuses on the ease of doing business processes.[23]

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[18]As of NJDG Data, (Cases pending more than 5 years), available at: 'http://164.100.78.168/njdg_public/main.php' (accessed on 12/06/2016).

[19]Supreme Court of India, 'NCMS Policy and Action Plan Committee in Consultation with Advisory Committee', 2012, available at: https://main.sci.gov.in/pdf/NCMSP/ncmspap.pdf (accessed on 25/05/2020).

[20]'Agenda Notes briefs, Joint Conference of Chief Ministers and Chief Justices of the various High Courts' on April 24, 2016, available at: http://doj.gov.in/sites/default/files/AGENDA-NOTE-CMCJ.pdf (accessed on 25/05/2020).

[21]Ibid.

[22]Ibid.

[23]Ibid.

V. Chief Justices Conference: Resolutions

Concerning about efforts made on ICT implementation, it has been observed that to get desired results and for beneficial purposes for litigants and public at large, Chief Justices Conference noticed in the ICT induction in judicial system, connectivity is one among major challenges which has to be addressed as early as possible. It may be noted that the 14th Finance Commission recommended Rs. 479.68 Crores for technical manpower support, however still number of State Governments has to utilize the allocated resources for technical manpower support for advancing the Courts 'infrastructure. On the other hand, it has been found that in spite of recurring requests of High Courts to fill technical manpower posts, there is lack of support from a number of State Governments. As per data provided by the High Courts, as on January 01, 2016, 2.62 Crore cases were pending, out of which 2.06 Crore cases shown as pending on respective date mentioned on NJDG data portal. The difference shown is primarily due to connectivity issues at many Court compounds, because of the gap in the updating data in respect of filing and disposing cases during Court processes.

Further, it is required to maintain equipment after the warranty period, the consumables required for DG Sets, Printers etc. need special attention, and this causes hardship in certain States leads to continue Project activities and providing services to the litigants, advocates and public at large. There are instances that all required fields of the Case Information System are not updated, since data is the primary and basic requirement in effective execution, because this feeding information and statistics have to be disseminated through National e-courts portal and National Judicial Data Grid, thus it is very important for the progress of the Case Information Software to ensure correct, complete and regular data of pending cases.[24] Furthermore, since this initiation is inter-linked with the standardization employed to the Case Information Software (CIS) for the High Courts, under the agies of NCMS, uniform entitles for all cases registered in the High Courts have been adopted on priority basis. The State Governments taken up issues of connectivity and providing technical manpower support with high priority.[25]

VI. E-courts and High Courts Initiatives in India

This section explores actual employability and application of ICT in Indian High Courts, discussed as follows:

Karnataka High Court

So far ICT application promptness is concerned, the Karnataka High Court has been extensively using SMS facility to provide relevant information to advocate and litigants, make them updated. In fact, data shown that 177 courts out of 199 courts, the SMS facility provide great advantage to the wholesome judicial mechanism. This function, through 'HC2LC application' similarly used for the benefit of Judge where the information and communication exchange made between High Court and the

[24] 'Resolutions Adopted In The Chief Justices' Conference', April, 2016, available at: https://main.sci.gov.in/pdf/sciconf/Resolutions%20adopted%20in%20the%20Chief%20Justices%27%20Conference,%202016.pdf (Visited on 25/05/2020).

[25] Ibid.

subordinate Courts. For an example, where an appeal or revision is filed in response to an interim order by a judge, the High Court sends an message to him/her which make him aware of the fact, and it also make him learn about any stay proceedings and its status. On the other hand, it helps the Judge to make the LCR for further process to the concerned Court forthwith, meaning saves a lot of precious time of the court. Likewise, if any appeal or revision disposal is done, the required SMS send to the concerned judges. Notably, this transmission of information make advantage to keep cases status update, thereby, the NJDG be corrected and updated with fast pace.[26] Further, the Karnataka High Court has started the ICT application through online inviting applications for recruitment purposes.[27]

Gujarat High Court

Special mention to the Gujarat High Court, where 'CIS 2.0' has been implemented in the districts courts of Gujarat, emphasizing on the benefits and advantage of the wide use of VC and media facilities, in this respects, the High Court taken steps to provide training program for judges, certainly make positive outcome accordance with aim and objectives of the e-Courts project.[28] Further, the Taluka Courts uploads data relating to order, judgment through GSWAN/NICNET ('slony' and 'rsync') connectivity to the staging web application server at High Court.[29] For an example, online bail application provides significant assistance in the legal aid services.[30]

Madras High Court

Coming to Madras High Court, the reengineering process has been taken proper attentions, accordingly the Civil and Criminal Court Manual is being overhauled. This has been taken the peripheral development of modules for districts courts and the High Court, in consonance with practices followed in the District Courts.[31]

Uttarakhand High Court

On March 16, 2010, then Chief Justice, Justice Barin Ghosh launched the websites of High Court connecting with all thirteen District Courts in Uttarakhand.[32] Looking into the ICT deployment in the State of Uttarakhand, 'District Court Information System' (DCIS) software training given to all officials. This DCIS Software application provides steps in the development for the computerization initiatives in the District Courts. With the compatibility of the guidelines and directions of Central Government websites,

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[26]'eCommittee Newsletter, Supreme Court of India', March 2016 available at: https://cdnbbsr.s3waas.gov.in/s388ef51f0bf911e452e8dbb1d807a81ab/uploads/2020/07/2020070524.pdf (Visited on 25/05/2020).

[27]Ibid.

[28]Ibid.

[29]Ibid.

[30]Ibid.

[31]Ibid.

[32]'Inauguration of Websites of High-court of Uttarakhand',

available at: https://informaticsweb.nic.in/news/inauguration-websites-highcourt-uttarakhand-and-all-13-district-courts-state-hon-chief-justice (Visited on 22/03/2020).

websites developed under PHP and MySQL and hosted on the Server provided by NIC-Uttarakhand, which are registered on GOV.IN domain having relevant information and details of Web Information Managers.[33]

VIII. Conclusion

To sum up, one can say that judicial processes in India are undergoing a change through digital India policy initiatives, the innovative application of ICT like Artificial Intelligence technologies may help to ensure efficient justice delivery to reduce backlog of pending cases. The efficient use of application of ICT will lead to good governance which ensures rule of law and to take e-governance initiatives to the desired level of aspiration of progressive and forward looking Government. The systemic application of ICT technologies may address the issue of efficiency of the justice delivery system in India.

[33]'National Policy and Action Plan For Implementation', available at: supremecourtofindia.nic.in /ecommittee/action-plan-ecourt.pdf (Visited on 23/03/2020).

CYBER SECURITY IN CIVIL AVIATION: CURRENT TRENDS

Prof. (Dr.) Kanwal DP Singh[1]
Dr. Jitender Loura[2]

Abstract

Aviation industry is growing at an ever-fast pace in terms of the growth in number of passengers, regular innovations and technological changes, the growing revenue stream, and the enhanced cyber-threats that come with this growth. For this reason the terms aviation and cyber security are almost used together. The recent changes in technology have made it necessary to focus on different measures of cyber security in the stream of aviation industry, particularly in its three pillars of ATC, airlines, and airports. Theindustry stakeholders necessitates that a serious effort be made in safeguarding the aviation industry from Cyber-attacks.

The use of technologies like Block chain, IoT and AI etc. are highlighted in context of airports being revamped for securing the data being shared and for enhancing the customer experience. The latter is because of the focus on tapping the revenue stream that is being promised due to increased passengers. A focus has been laid on Indian context, while discussing the international aspects as well. In order to show the efforts made to safeguard and criminalize the malicious acts in aviation industry, the discussion also sheds light on the various regulatory measures being applied in the nation. The attempt here is to shed a light on the recent trends and the goals of the nation to both safeguard this industry and to use the growing revenue stream for its advantage.

Key words

Cyber-Security, Civil Aviation, Airlines, Airports, Air Traffic Control, Block Chain

I. INTRODUCTION

India has the second-highest client-based Internet in the world in its emerging digital economy. Lead practices of the Union government such as 'Internet India' and the focus on digital based governance are raising the data structure of the world.[3] In future, integrity in the cyber networks of India will be increasingly challenged and fragile. The Indian aviation industry is the fastest growing industry in the country. Following

[1]Professor & Former Dean, University School of Law and Legal Studies (USLLS), Guru Gobind Singh Indraprastha University, Delhi-110078, India. Email: Kanwal.als@gmail.com

[2]Dy. Director, Directorate General of Civil Aviation (DGCA), Ministry of Civil Aviation, Govt.of India and Research Scholar, USLLS, Guru Gobind Singh IndraPrastha University, Delhi-110078, India. Email: Jloura.dgca@gmail.com

[3]Ankit Kesharwani&Shailendra Singh Bisht, The Impact of Trust and Perceived Risk on Internet Banking Adoption in India, 30 International Journal of Bank Marketing (2012).

developments in the aviation industry in India, it has undergone immense shifts. The Indian aviation sector is currently deemed private, whether it is operated by the Government, with full-service airways and moderate carriers. Commercial airlines make up over 75% of the local aviation market[4]. Before, they treated many as exorbitant, controlled and benefited methods of transport. In a country's economic growth, aviation has been the maximum necessity fragment. It assumes that he or she would be valuable in moving people or devices from nearby to later national or foreign, particularly as the separation is long overdue.

There is a rising degree of connectivity and digitalization in the air transport chain. In the aviation industry, technical developments allow huge chances to enhance not only customer care, protection, flight quality, operations but also the experience of passengers on the ground as well as in the air. The industry has become more open and vulnerable to cyber-attacks on harmful viruses aimed at the aviation sector through technical advancements and connections. Detection and avoidance is the best-looking approach because after each attack these risks get steeper and steeper. The need for technological developments to prevent IT infrastructure and networks in the aviation sector from cyber-attacks is the main factor for this business. Moreover, the need to secure the infrastructure is crucial as the spacecraft industry progresses towards autonomy and invests billions into aviation technology growth[5] . For its ground and flight activities, the aviation sector relies heavily on IT infrastructure. The safety of these airline networks has a significant effect on the industry's safety and performance and indirect effects on operation, prestige and financial wellbeing.

II. INTERNATIONAL REGULATIONS

International Civil Aviation Organization, (ICAO) is the specialized agency of United Nations, through which the techniques and principles of air navigation, across the globe, are codified. ICAO is responsible for fostering the planning and the development aspects of the global air transport, in a safe, orderly and expeditious manner. ICAO was given the key duties of technical standard setting, accompanied by the overall generic supervisory functions[6]. The strategic objectives of ICAO included

- Security and facilitation
- Environmental protection
- Safety
- Air navigation capacity and efficiency
- Economic development of air transport[7] .

ICAO has established 19 Annexes to the Convention on the Civil Aviation Organization.

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[4]Alok Kumar Singh, Modelling Enablers of TQM to Improve Airline Performance, 30 International Journal of Productivity and Performance Management (2013).

[5]Bhavya Malhotra, Foreign Direct Investment: Impact on Indian Economy, 4 Global Journal of Business Management and Information Technology (2014).

[6]L Weber, Encyclopaedia of Public International Law, Vol. I 571 (1992).

[7]ICAO,Annual Report of the ICAO Council: 2014 (2014) (Mar. 05, 2021 08:20pm) https://www.icao.int/annual-report-2014/Pages/default.aspx

ICAO has the responsibility of regulating the Aviation security worldwide through the Annex 17 and its various resolutions.

The security feature of air law is primarily concerned with the following:

- The Tokyo Convention of 1963's Offences and some other acts taken place on board aircraft;
- The Hague Convention of 1970's subdual of illegal seizure of aircraft; and
- The Montréal Convention of 1971's subdual of illegal acts against the safety of civil aviation.

At present, Annex 17 covered under Chapter 4 deals with the cyber threats which inter-alia states that:

"....Each Contracting State must develop measures in order to protect information and communication technology systems used for civil aviation purposes from interference that may jeopardize the safety of civil aviation."

In the 2019 ICAO Cyber-security Aviation Plan, capability development and the culture of cyber-security were recognised and discussed, as core components of a successful cyber resilience programme [8].

III. NATIONAL REGULATIONS

A. INFORMATION TECHNOLOGY ACT, 2000

In 1996, to encourage global regulatory uniformity, the UN International Trade Commission introduced the e-commerce model rule. This model legislation has been approved by the UN General Assembly as the basis of numerous cyber rules. India quickly became the 12th nation in the world to legitimize cyber laws[9]. Post the first draft, established in 1998 by the Ministry of Commerce under the E-Commerce Act, adopted in May 2000 by revised Bill on information technology[10]. Finally, with the implementation of the IT Act in October 2000, things were under regulation. This Act carefully traced any trifle online, cyber and worldwide Network operation or purchase[11]. The small behaviours and the global cyberspace response levied significant legal consequences and penalties. The act soon altered the Indian Penal Code (IPC) 1860 (45 of 1860), the Bankers' Books Evidence Act 1891 (18 of 1891), the Indian Evidence Act (IEA), 1872 (1 of 1872) and the Reserve Bank of India (RBI) Act 1934[12] . These reforms intended to provide legal recognition for transactions carried out by Electronic data interchange.

The penalty for cybercrime is protected by Section 66F[13]. This portion will be considered

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[8]John Macilree,&David Timothy Duval, Aero politics in a Post-Covid-19 World, 88 Journal of Air Transport Management (2020).

[9]Vinit Kumar Gunjan et al., A Survey of Cyber Crime in India, 88 15th International Conference on Advanced Computing Technologies (ICACT) (2013).

[10] Information Technology Act (2000).

[11]Jamal Raiyn, A Survey of Cyber Attack Detection Strategies, 8 International Journal of Security and Its Applications. (2014).

[12]Stephen J Lukasik et al., Protecting Critical Infrastructures Against Cyber-Attack (2020).

[13]Information Technology Act § 66 (2000).

to have detrimental effects on vital facilities in circumstances when either of three forms of defined operations resulting in injury or death to any individual caused or significant harm to supplies, utilities, property or disturbances that are important to a community existence is carried out[14]. These infrastructures are defined by section 70 of this Act as secure networks[15]. In this clause, the person who violates the requirements of the respective sections shall be punished up to 10 years and fined. Section 70B[16] creates an "Indian Computer Emergency Response Team" for support in electronic protection accidents and other cyber-safety-related emergencies[17] .

The IT Act requires any device to be designated as a security mechanism by the proper government, with direct or indirect consequences for the CII facility, as well as CII. When informed as a "protected system," the CII shall be granted protections against any improper disorder or access using tighter regulations. In some cases, this feature of CII considered being "protected systems." These involve the UIDAI Servers, the Terra Protected Network, and the Long Range Detection and Tracking Device. The banking and financial processes have also been monitored. However, the broad importance of the protected structure has contributed to the goal to define regions that ought to be protected. This includes the case of governmental governments such as the government of Chhattisgarh which interpret these systems openly to include any kind of network connections and computer systems.

B. THE NATIONAL CYBER SECURITY POLICY, 2013

The cited policy expressed cyberspace as a shared resource for disparate players that are not readily distinguishable from each other, as was cyber-security. This policy determines the different ways that cyber protection can be successfully managed. These approaches include threats detection, intelligence exchange between stakeholders, survey and response planning. The key aim of this policy was to demonstrate how crucial it is to secure personal data from cybercrime and the vital infrastructure economic and socially[18]. While this strategy acknowledged the numerous facets of cyber-security, it had not differentiated between disparate approaches to national cyber-security and the way the government plans to address these concerns. This involves failing to explain how cyber threats or cyber-terrorism need to be handled while coping with the sensitive infrastructure of data loss cyber threat. Such deficiencies involve a shortage of material interventions or goals to accomplish cyber-security

[14]Debarati Halder, A Retrospective Analysis of S.66a: Could S.66a of the Information Technology Act Be Reconsidered for Regulating 'Bad Talk' in the Internet?, 3 Indian Student Law Review (ISLR). (2015).

[15]Information Technology Act § 70 (2000).

[16]Information Technology Act § 70B (2000).

[17]Dr. Rajinder Kaur& Dr. Rashmi Aggarwal, The Information Technology Act, 2000-Demystified With Reference to Cybercrimes, 17 Paradigm (2013).

[18]Sanjiv Tomar, National Cyber Security Policy 2013: An Assessment, Idsa.In (Mar. 06, 2021, 05:25am)https://idsa.in/idsacomments/NationalCyberSecurityPolicy2013_stomar_260813#:~:text=With%20an%20aim%20to%20monitor,citizens%2C%20businesses%20and%20the%20government.

C. XII FIVE YEAR PLAN REPORT ON CYBER SECURITY (2017- 2022)

To conform to unclear laws, the "XII Five Year Plan Report on Cyber Security" is another step taken in India. This strategy applies from 2017 to 2022 with the emphasis on seeking solutions to ensure cyber-security in a comprehensive way over the expected span. Certain concrete measures have been established, which can be viewed as the aim results for cyber defence. The only problem is that only a couple of them are working[19].

In cyber defence policies, and even in the five-year strategy, cyberspace offenders are listed as being a concern. Cyber-warfare, identity stealing, hacking and similar offences are other crimes that can be investigated by law enforcement authorities in compliance with several provisions of the IT Act (2000) of the IPC. In addition to being no precise line of policy for Internet-based crimes, there is also a very small distinction between the cyber-dependent and cyber-enabled crimes[20]. There is still a shortage of legislation specific to regulatory authority on data privacy. The reality is that the safety of specific personal records, typically owned by private individuals, as the main aspect of cyber-security, is barely any prominence in legislation. Market instances and privacy security vis-à-vis web platforms are mostly dominated by privacy laws, particularly those related to statutory solutions.

The primary mechanism for data security, as required by the IT Act in Section 43A "body corporate," remains to be the provision of fair practices[21]. They are read regarding the Requirements for Appropriate Protection Procedures, which state the need to conform to sound safety standards. These requirements are contained in the numerous manuals, including the "ISO 27001 Information Security Management Norm" with the help of the Government. The national cyber-security, including strategy for the private sector, community and government policies, has taken increasing importance for the country. These are once again reliant on the internet and hence the need to maintain the same. Furthermore, the nation'scyber protection system has shown a strong need to protect economically and socially important sectors (including insurance, banking and energy), and the nation's cyber-security is seen as a key component of the nation's defence goals and foreign policy[22]. And as a variety of variables presenting "cyber-security threat" (including foreign governments, terrorists, incidents or natural disasters) are recognised in the cyber-security strategy, this policy remains primarily directed towards the coordinated cyber challenges (including the ones by terrorist groups or foreign states). They can pose public safety risks, which is why cyber-security is not seen by a multifaceted strategy, with an important emphasis on achieving state and nation-based targets using this policy. In comparison, the Indian strategy emphasizes developing cyber-security techniques rather than relying on cyber offence capabilities.

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[19] Ellyne Phneah, India Govt. Unveils Five-Year Plan To Revamp Cyber-security |Zdnet, (Mar.6,2021,06:14am)https://idsa.in/idsacomments/NationalCyberSecurityPolicy2013_stomar_260813#:~:text=With%20an%20aim%20to%20monitor,citizens%2C%20businesses%20and%20the%20government.

[20] Chinese Academy of Cyberspace Studies, World Internet Development Report 2017 (2018).

[21] Information Technology Act § 43A (2000).

[22] Pradeep Kumar Singh et al., Proceedings Of First International Conference On Computing, Communications, And Cyber-Security (IC4S 2019) (2020).

IV. CYBER SECURITY IN AIRPORTS

A. REVENUE GENERATING STREAM

One of the key trends in airport management stems from the fact that the passenger's contact point is a major market share. This is because the number of passengers travelling by air is rapidly increasing, particularly in a nation like India[23] . This is the reason why airports do continue to bring improvements in infrastructure intelligence so that they can ensure that the passenger's travelling experience is improved. When there is a real-time exchange of information to the likes of the flight schedule, the airport-wide process integration, and collaborations, the airports can improve their passenger services, advanced security capabilities and operational efficiencies[24] .

The 2018 SITA Air Transport IT Trends Insights report showed that the priority on cyber-security has been given particularly to the airlines and airports[25] . The statistics revealed that out of the studies airports, 94% were making a plan to invest in programs related to cyber-security by end of 2021[26]. Particularly in the context of the Asia-Pacific region, there is an increased demand for measures of cyber-security measures to be adopted in the aviation industry. The Vision 2040 of Indian Government provided that the nation needed around 200 commercial airports. This required an approximate investment of around USD 50 billion, to allow for the 1.1 billion passengers to be handled. Similar provisions were seen in the emphasis made in President's Budget of 2019 of the USA, where USD 15 billion was set aside for cyber-security measures for Airports. To secure the growing aviation ecosystem, the civil aviation authorities across the globe are focusing on ensuring and improving the security and safety standards of this face-paced industry. One of the reasons stems from the malicious malware attacks that target the aviation sector. One of such instances was noted in December 2017 at Perth Airport, where a major chunk of security data, that was sensitive, was stolen.

B. TECHNOLOGY

With the growth of technology, particularly in the context of the innovations being brought into the digital world, the world of airports is also changing. From the erstwhile days of airports, where reliance on technology was for necessities, to the present modern world of airports, where everything has been touched with technology, there has been a noted revamp in the "persona" of airports. The threats on airports, with this advent of technology, have increased manifolds. This is why the focus on cyber-security has seen a growth and new trends in this context keep on emerging with every passing year. There is a dire need for the securitization of data which has led to the adoption of strategies that demand a high level of resourcefulness in the context of sharing data[27] . This is the reason

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[23]Vincent P Galotti, The Future Air Navigation System (FANS) (2019).

[24]Galileo Tamasi& Micaela Demichela, Risk Assessment Techniques for Civil Aviation Security, 96 Reliability Engineering & System Safety (2011).

[25]Nuriye Gures et al., Risk Assessment Techniques for Civil Aviation Security, 71 Assessing The Self-Service Technology Usage Of Y-Generation In Airline Services (2018).

[26]CISO MAG | Cyber Security Magazine, Aviation Cyber Security Market To Grow 11% During 2019 - 2024, (Mar.07, 2021, 09:00pm) https://cisomag.eccouncil.org/aviation-cyber-security-market.

[27]Paul Wilkinson& Brian Michael Jenkins, Aviation Terrorism And Security (2013).

why they need for system integration and connectivity it is increasing in the aviation industry. The constant increase in cyber-attack threats is one of the reasons for doing so.

Different airports are adopting different modes to deal with the difficulties of interoperability. Munich Airport, for instance, relies on modelling tools and data analytics for big data. This involves the use of artificial intelligence tools. The aviation industry has seen an improvement in aviation process and an evolving market, be it in context of the passenger experience improvements, advancement in air traffic management, or the enhanced efficiency of processes being adopted in airports[28]. Without such enhancements, the airports cannot be secured and controlled properly, which acts as a golden opportunity for cyber-attacks to be successful. The magnitude of these threats is catastrophic as these can result in major accidents and shutting down airports. The data and systems adopted in airports is a target for hackers, where they can also take a chunk of money from the airports, just to give the control system of airports back to the right authority[29] .

One of the recent trends noted in airports' cyber-security is Block Chain. This is a technology that is being deemed as a safe and reliable mode of exchanging the key information that is held in the digital channels. The main reason for relying on this technology stems from the need of securing the financial value assets' exchange. Though, the use of the principles and application of Block Chain technology, in realms of aviation information technology is still being researched[30]. Various prototypes are not only in a development phase but also some which have landed the testing phase. This technology does offer some promising solutions. But as is the case with every technology, this technology too comes with its own set of challenges, specifically in the context of its cost of operation and its governance. These measures are still being discussed and sorted out.

The basic concept that eases the airport system with the use of Block Chain is that it supports and challenges the barriers that are present between the individual procedures as the data is locked in a shared Block Chain[31]. This is better from erstwhile systems of the need of accessing/ consulting with the central authorities to get the personal data. Essentially, Block Chain makes the entire system efficient by making it simpler. An example of this can be cited in Digital identity concept. In this matter, the identity of a person can be stored in a network, which could give away the need for showing the travel documents and passport during the journey, at the airports[32] . There is also the ease of a new booking platform being implemented, as is being done by companies like

[28]Sorin Eugen Zaharia& Casandra Venera Pietreanu, Challenges in Airport Digital Transformation, 35 Assessing The Self-Service Technology Usage Of Y-Generation In Airline Services (2018).

[29]Mark G Stewart& John Mueller, Terrorism Risks and Cost-Benefit Analysis of Aviation Security, 33 Risk Analysis (2012).

[30]Assunta Di Vaio& Luisa Varriale, Block Chain Technology in Supply Chain Management for Sustainable Performance: Evidence From the Airport Industry, 52 International Journal of Information Management. (2020).

[31]R. I. R Abeyratne, Aviation In The Digital Age (2020).

[32]Qiang Cui& Ye Li, The Change Trend and Influencing Factors of Civil Aviation Safety Efficiency: The Case of Chinese Airline Companies, 75 Safety Science (2015).

Travel Block or Winding Tree. There is also a possibility of different rewards systems being unified.

A study conducted by British Airways, Miami, Heathrow and Geneva Airports and SITA known as Flight-chain highlighted how the Block Chain technology is used to solve different issues as it creates a single source of truth. This is because the flight information is updated as soon as everyone agrees to it. The attacks done in recent times at airports like Gatwick Airport have highlighted the need for thinking about airport operations and drones. There is a development of Block Chain-based app being done by Brussels Airport for replacing the handover documents from that of the handlers to that of the forwarders[33] .

Another noted trend that is meant to ease and help in the rise of interoperability involves SWIM, which stands for System-Wide Information Management. This is a technology program that is brought forth by ICAO and is being developed in single European Sky ATM Research (SESAR). The goal here is to set out common standards that can be adopted for exchanging the data, in a safe and secure mode. This is because the airports do provide a scalable and flexible architecture that can allow for proper and consistent information being exchanged, thereby improving both the operations and planning at airports. The other noted technological advancements that have been adopted by the airports in the context of cyber-security involve use of automation, Internet of Things (IoT), Artificial Intelligence (AI) and cloud computing[34] .

With the 2020 pandemic, the growth of AI has seen an upward swing. This is because of the need to further digitizing and taking out the human element, to contain the spread of viruses like COVID having resulted in reliance being placed on AI[35] . Even though AI has been here for many years, it is noted that there has been slow progress of it in airports. The things like Chabot and robots have seen their way in airports, but the lack of enhanced systems of these AIs have resulted in a very restricted adoption in reality. The Seattle-Tacoma International Airport and London Heathrow Airport have seen a trialling AI tech whereby the turnaround process video footage is being captured and compared based on the already planned schedules. In Germany, the Fraport is making use of machine learning for predicting the flight touchdown, based on flight tracking timestamps that are available in hundreds of thousands[36] . The best part is the possibility of improving the genius of AI. This is in sense of the improvements in passenger and aircraft process by making better predictions regarding the various experiences available at the entire airport.

C. CHALLENGES POSED BY CURRENT TRENDS

All the aforementioned advancements come with high costs. And the key problem here is that the value of these technologies is not assured. This is because the cyber threat

[33] R. I. R Abeyratne, Aviation Trends In The New Millennium (2017).

[34] Achim I Czerny et al., Post Pandemic Aviation Market Recovery: Experience and Lessons From China, 90 Safety Science (2021).

[35] Kaitano Dube et al., COVID-19 Pandemic and Prospects for Recovery of the Global Aviation Industry, 92 Journal of Air Transport Management (2021).

[36] Dagi Geister&Robert Geister, Integrating Unmanned Aircraft Efficiently Into Hub Airport Approach Procedures, 60 Navigation (2013).

landscape is involving technology and is also relying on the same technology to counter the predecessor. A global estimate put the slower pace of technological innovation in cyber-security amounting to a threat of lost USD 3 trillion for 2020. Some of the reasons being, the complex regulatory requirements, dangerous insider threats, skilled security personnel and incessantly evolution of cyber-attacks. The pandemic acted as another major security challenge for the airports. This is because the complexity of data breach grew in 2020, where the breaches increased by 273% in just the very first quarter when compared to the same value of 2019. A single hacker was able to steal 34 million user records in 2020 from 17 companies[37] .

V. CYBER BREACH IN INDIA

A. SPICE JET AIRLINE CASE

The confidential details of over a million travellers have been leaked through a data leak on the Indian Spice Jet airline. A technology researcher who documented an intrusion to Tech Crunch obtained entry to the operating system of the airline.The researcher fetched an unencrypted archive backup file that included private details from more than 1.2 million passengers travelling over Spice Jet, utilizing a brute force attack. The password securing the data was easy to conjecture, according to the ethical hacker[38] .

The violation details contained the names of travellers, contact numbers, email instructions, and birth dates. Several government officials were among the passengers whose details were revealed. According to the researcher, it was straightforward for someone who knew where to go to the database file to make the budget airline insecure. After the illegal access to passenger data of Spice Jet was effectively acquired, the prosecutor approached the airline to notify them of a violation[39] . The researchers said they made no positive reaction to Spice Jet's attempts to meet the airline.

B. INDIGO AIRLINE CASE

India's largest fleet-sized airline, Indigo has reported that hackers have possibly infected some of its internal records. The carrier announced during the filing in BSE that several of its servers were compromised in December. It is claimed that, while "some segments of data servers" have been infringed, the networks have been restored in a very short period with minimal effects. "There is a risk that the hackers will publish any internal documents to public websites and forums. We understand the gravity of the problem and continue to collaborate with all the necessary experts and law enforcement to maintain a thorough inquiry into the event [40]."

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[37]Marco Scholz&Fethi Abdelmoula,, Active Noise Abatement Using the New Developed Pilot Assistance System LNAS, Institute of Noise Control Engineering (2017).

[38]Navid Kagalwalla& Prathamesh P. Churi,, Cyber-Security in Aviation: An Intrinsic Review, 5th International Conference On Computing, Communication, Control And Automation (ICCUBEA) (2019).

[39]Clarence C Rodrigues et al., Commercial Aviation Safety (2017).

[40]Cirium, Indigo Investigates Data Breach Involving Internal Documents, Flight Global (Mar. 08,2021, 10:08am) https://www.flightglobal.com/airlines/indigo-investigates-data-breach-involving-internal-documents/141803.article.

C. IGI AIRPORT (DIAL) CASE

The passengers of IGI (Indira Gandhi International) airport were left stranded on 29th July 2011, and the flights on Terminal 3 of Delhi were delayed. Instead of automated check-ins the same had to be done manually for the flights. DIAL (Delhi International Airport Limited) claimed that this was merely a back end server glitch. This incident covered 50 flights being impacted owing to failure of CUPPS(Common Use Passenger Processing Systems), as the domain was not working for around twelve hours. Further, it was restored only when ARINC (Aeronautical Radio INC.) and Wipro intervened. Even though no flights had to be cancelled, several of them were delayed by around half an hour.

Upon the investigation of CBI (Central Bureau of Investigation) of India, this simple technical failure was a virus attack on the system. A case was registered under the Indian IT Act where the investigations revealed that a malicious code was used, and that too from an unknown remote location, resulting in the failure of CUPPS. As per CBI, this was triggered through some scripts on system, which pointed towards the involvement of experts holding detailed and expertise knowledge regarding these systems, along with holding the intent of crippling these systems. As this was deemed as a type of cyber-attack, CBI looked for the responsible individuals, resulting in case being filed against unidentified people. CBI also concluded that there were major security lapses[41].

There were reports of other such incidents as well. As per one of such reports, a server covering 148 domains of airports of India (including Trivandrum and Cochin), were hacked by Pakistani cyber criminals. These individuals were identified as being Pak Cyber Attackers, named Kashmiri Cheetah[42].

VI. CONCLUSION

While there are several views on how to develop a common view of the aviation cyber-security challenge, there is potential for and a move forward. Adversaries have a large attack surface and potential, with growing numeration and accessibility. A further weakening of physical controls which shielded the aviation industry so long is the increasing complexities of systems, procedures, and supply chains, combined with an increase in wireless connectivity. In addition to highly competent threat entities, the aviation industry faces an essential challenge, spanning from terrorists to nations. Where necessary the industry wants to pursue rapid gains, but still understand that it is still an evolving challenge to protect the aviation industry from cyber adversaries.

India saw the confidence in digital forms much later than its foreign partners. That is why it has taken cyber-security steps well behind nations such as the USA and the other European nations. Yet again, that is why the electronic protection initiatives for the civil

[41]Manan Kakkar, CBI believes cyber-attack led to IGI airport's technical problems in June, (Mar. 08, 2021, 11:28pm), https://www.zdnet.com/article/cbi-believes-cyber-attack-led-to-igi-airports-technical-problems-in-june.

[42]Surbhi Gloria Singh, Major cyber-attacks across the globe, (Mar. 09, 2021, 11:55 pm), https://www.business-standard.com/article/technology/2016-a-year-for-hackers-spies-know-major-cyber-attacks-across-the-globe-116122800341_1.html.

aviation industry have been postponed. BCAS, which looks at aviation security concerns, is the main body operating in this region. Steps are taken, such as control rooms and staff preparation. The Information Technology Act, 2000 is the key law protecting the Indian cyberspace. The Indian cyberspace has been effectively secured by initiatives like the National data protection strategy, the "XII Five Years Plan Report on cyber-security" and so on. The fact that they are not constructive is a crucial negative feature of Indian Internet protection legislation. These activities are to be taken after international cyberspace comparison. Even if this is not a negative problem, it demonstrates that dependence on others is still important to take the measures needed to defend cyber-areas in civil aviation. There are also just a couple of initiatives operating in the area of aviation cyber protection in terms of regulatory instruments and bodies.

HUMAN ENHANCEMENT TECHNOLOGIES: DEMYSTIFYING THE LEGAL AND ETHICAL ISSUES

Vidya Menon*

Abstract

The right to bodily autonomy implicit under right to life and personal liberty as enshrined under Article 21 of the Constitution may also be interpreted to include the right to modify or improve one's body. The use of RFID technology that provides for microchipping in individuals have been in existence for quite a while. While some consider the technology to be beneficial, the others are of the opinion that the practice is unsafe, invasive and inhumane. However, the issue arises when such unbridled right is used by individuals in enhancing their existing capabilities in a manner which would give them definitive advantage over other non-enhanced human beings, resulting in class divides and structural inequalities.

Key words

Human enhancement technologies, right to bodily modifications, brain-machine interface, RFID technology, brain chip implants

Introduction

The rapid advancement in science and technology, has transformed our lives in numerous ways.We are living in an era where gadgets have become an indispensable part of our lives. From mathematical calculations to electronic dictionaries to GPS navigation to e- payments, these days we are very much dependent on technology. These technological innovations have not only changed our lives for the better; but has also turned into extensions of our body. But then, what if these external aids that augment our lives could be merged with the human body? Would that make individuals less of a normal human being? From manufacturing assistive devices that are designed to aid the people in their day-to-day activities to developing technologies that collaborate people with artificial intelligence, there has been a gradual shift in the approaches towards improving the quality of life.

With a view to integrating humans with technologies, emerged the concept of 'trans humanism'.The idea of trans humanism' was devised by Julian Huxley, who explained the philosophy as improvising the human condition by the use of emerging technologies, surpassing the traditional limitations of human body[1]. The scope of trans

*Assistant Professor, Faculty of Law, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, E-mail: vidyamem@srmist.edu.in

[1]Huxley J.,Transhumanism, 8 Journal of Humanistic Psychology, 73-76 (1968), doi:10.1177/002216786800800107

humanism extends to not only mitigation of diseases, illness or restoration of normal bodily functions, otherwise incapacitated by accident or injury, but also to the process of augmenting the existing intellectual and emotional capabilities in humans with the view of transforming them into super intelligent beings. According to trans humanists, with the responsible use of the emerging technologies we can eventually remold the human beings to enhanced versions of themselves[2]. The vision therefore is to make use of the technology into achieving a greater degree of control over our lives, augment the human productivity and thereby create an opportunity to live longer.

When technology enhances the human performance beyond the realms of what is regarded as 'normal' for human beings, the question arises as to whether an 'enhanced human' or a' trans human' should be regarded as a human being? Whether 'trans humanism' should be trivialized as mere bodily modifications? If technology enables humans to enhance the bodily functions, and become augmented beings, should it be restricted? If the restrictions are placed, would it tantamount to infringement of right to bodily autonomy, a subset of right to life and personal liberty? If restrictions are not placed, would it be a threat to humanity? Though these are individual choices which are to be made, it has a huge bearing on the society as a whole and could in fact change the way we live. Human microchip implantation and brain machine interface are two such emerging human enhancement technologies which have gained popularity in the recent times. Though these are promising technological innovations, it holds the potential for misuse, especially if left unchecked. Thus, understanding the future implications it is extremely important to frame a robust regulatory regime that focuses on balancing the risk of misuse of human enhancement technologies with a desire not to stifle the breakthrough innovations.

Human Microchip Implantation

The origin of RFID technology can be traced to World War II where it was used to detect and warn the citizens of the approaching allied airplanes[3]. Consequently, with the exploration of potential application of the technology in various fields, the RFID systems became widely used in electronic tolling systems, smart ID cards, tracking of individual goods, merchandise as well as pets and other animals[4]. Thus, an otherwise cumbersome process of bulk reading, data transfer, inventory management, tracking and identification of lost petsetc had become much easier with the use of RFID technology.

Gradually the application of RFID technology in humans gained considerable

[2]Grant AS,Will Human Potential Carry Us Beyond Human? A Humanistic Inquiry into Transhumanism, Journal of Humanistic Psychology (2019), doi:10.1177/0022167819832385

[3]Dario A. Rodriguez, Chipping in at Work: Privacy Concerns Related to the Use of Body Microchip ("RFID") Implants in the Employer-Employee Context,104 Iowa L. Rev.1581(2019), available at https://ilr.law.uiowa.edu/print/volume-104-issue-3/chipping-in-at-work-privacy-concerns-related-to-the-use-of-body-microchip-rfid-implants-in-the-employeremployee-context/, last accessed on June30, 2021.

[4]Elaine M. Ramesh,Time enough?Consequences of Human Microchip Implantation, 8 Risk: Health, Safety & Environment,373 (1997), available at https://heinonline-org.gnlu.remotlog.com/HOL/Page?public=true&handle =hein.journals/risk8&div= 36&start_page=373& collection=journals&set_as_cursor=0&men_tab=srchresults, last accessed on May 29, 2021.

popularity. The first successful human microchip implantation was performed in 1998 on Mr. Kevin Warwick, a professor of cybernetics, who had inserted the chip on his arm so as to track his movements within the University by means of a computer[5]. Over the years, the significant developments paved way for the manufacture of Gen2 Compatible RFID chips with better specification and features. The implantable RFID chips which are in commercial use today are about the size of a grain and are designed to hold all relevant information such as identity, details regarding health, payment, security clearances etc of the concerned individual. There have been mixed responses in relation to the use of RFID technology in humans. While some consider the technology as a boon to the society, the others are of the opinion that the use of technology is extremely invasive and in the long run would pose a threat to the health of the individual.

a. The Meow-Meow Case

In 2017, the courts for the very first time witnessed the issues pertaining to the right of the individuals to modify their own body when a biohacker in Australia, Mr. Meow inserted a travel chip into his hand so that he could travel hassle free without having to carry and swipe the card every time he boarded a train[6]. In a legal action against Mr. Meow for travelling without a valid ticket, the biohacker submitted that by swiping the chip implanted onto his wrist, he had technically paid for the journey and that by inserting the microchip in his hand, he had merely exercised his freedom of enhancing the functionality of his body which can be attributed to right to bodily integrity protected under the right to life of the individuals[7]. The transport authorities contended that there was a violation of the terms and conditions in the card's use as cutting the chips in the card and implanting the same in the body amounted to tampering. Indicating as to how the law of the day ought to have been followed, Mr. Meow was fined and directed to pay $220 along with legal costs for not being able to show a valid ticket at the time of inspection. In an appeal by Mr. Meow, the District Court directed that the conviction be set aside and upheld the legal costs.

The case highlights the inadequacy in the law to keep pace with the technological advancements and raises questions on the aspects of bodily integrity and the legality of bodily modifications. Though many condemned the extreme choices made by Mr. Meow, it is predicted that taking into account the utility of the RFID technology, many more individuals would voluntarily come forward wanting to get themselves chipped. From locking and unlocking the doors to authorizing payments to storing relevant personal data, the microchips inserted in the individuals have a lot to offer and it is interesting to observe how over the years the mind set of the society has changed into accepting these technologies for the sake of convenience.

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[5]Ajay Kumar S. et al., Microchip Insertion in Human beings - A New Identification Tool, 5 International Journal of Current Research and Review, 52 (2013), available at https://www.ijcrr.com/article_html.php?did=1000&issueno=0, last accessed on June 25, 2021

[6]Paul Gregoire, Australia's First Cyborg Rights Case: An Interview with Biohacker Meow-Meow, available at https://www.sydney criminallawyers.com.au/blog/australias-first-cyborg-rights-case-an-interview-with-biohacker-meow-meow/, last accessed on June 22, 2021.

[7]Galloway, Kate, The COVID Cyborg: Protecting Data Status,45 Alternative Law Journal, 162-67 (2020), https://doi.org/10.1177/1037969X20930431.

b. Microchipping the Workforce

In the recent times, embracing the new world of emerging technologies, many global companies and organizations have started considering the prospects of microchipping their employees. The chips inserted in the employees can reveal real time information such as the time spent by the employee in the office, the duration of break, the amount spent at the cafeteria etc[8]. The organizations claim that the RFID technology could be the biggest boon as it ensures the effective monitoring of employees which contributes to their increased productivity at work. Countries like Sweden have readily accepted the human-technology interface and have already inserted microchips in thousands of its citizens[9]. Despite the promising benefits, there are numerous concerns relating to the long-term risks and uncertainties that these implants can have on the health, privacy and safety of the individuals[10].

Additionally, there have also been instances where the organizations have imposed microchipping as a condition of employment, resulting in situations where the employees are pressurized into either voluntarily/involuntarily accepting the chip implants[11]. Right to life shall be interpreted to be inclusive of the right of individuals to refuse any bodily implants. In view of this, as many as seven states which includes New Hampshire, Oklahoma, Maryland, Wisconsin, California, Utah and North Dakota have already passed legislations prohibiting mandatory microchipping in humans[12] and a few more states are in the process of adopting similar legislations. In the increasing context of employee surveillance, enhanced productivity and convenience, it is crucial to not only consider the implications of microchipping but also to safeguard the individual rights from the newly sanctioned technological advancements.

With an escalation in the number of human microchip implantation globally, it is only a matter of time when the courts in India will have to deal with issues of similar nature. Right to life and personal liberty guaranteed under Article 21 of the Indian Constitution incorporates the right to bodily autonomy which includes the right of citizens to make voluntary choices with respect to one's body, be it in relation to sexual activity, procreation, medical care, body designing or other forms of bodily modifications such as sex-reassignment surgery, cosmetic surgery etc. Though voluntary microchip implantation could be interpreted as one such form of bodily modification which can be

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[8]Joshua Z. Wasbin, Examining the Legality of Employee Microchipping Under the Lens of the Transhumanistic Proactionary Principle, 11 Wash. U. Jur. Rev. 401 (2019), available at: https://openscholarship.wustl.edu/law_jurisprudence/vol11/iss2/10, last accessed on June 17, 2021

[9]Orlowski, Eric J W., Evolution, Revolution and the New Man: An Ethnographic Investigation into Microchipping, Human Augmentation and Building New Futures, 32 Etnofoor, 77-92 (2020), available at https://www.jstor.org/stable/26924851, last accessed on June 24, 2021

[10]Suder S., Erikson M.,Microchipping Employees: Unlawful Monitoring Practice or a New Trend in the Workplace? In: Ebers M., CanteroGamito M. (eds) Algorithmic Governance and Governance of Algorithms. Data Science, Machine Intelligence, and Law, Springer, Cham, https://doi.org/10.1007/978-3-030-50559-2_4

[11]Ibid

[12]States Just Saying No to Employee Microchipping, available at https://www.lexisnexis.com/en-us/products/state-net/news/2020/03/13/states-just-saying-no.page#:~:text=Laws%20passed%20in%20California%2C%20Maryland,any%20person%2C%20not%20just%20employees, last accessed on June 19, 2021

brought under the ambit of Article 21; it is to be noted that involuntary or rather forced microchipping falls outside the purview of right to bodily integrity. The rise in human microchipping also calls our attention to the potential dark side of the technological innovation which includes the risk of data theft, malicious access, data manipulation and infringement of privacy. In the wake of potential misuse of the RFID technology; especially in relation to forced microchipping,it is extremely important to frame appropriate laws and guidelines that not only regulate the process of microchipping but also ensure the safety of the individuals opting to get themselves chipped. Additionally, it is also essential to educate the citizens about the pros and cons in microchipping so that citizens can make an informed choice regarding the same.

Brain-Machine Interface

Brain machine interface, also known as the neural interface is a promising technological innovation that measures the activities of the brain and provides for a communication pathway which supplements, enhances or restores the natural output, thereby improving the quality of life[13]. By detecting the brain signals and transmitting them to digital devices, diagnosis of diseases becomes easier which in turn makes prevention, rehabilitation and restoration of affected individuals, a possibility. The research community is of the opinion that this is a powerful technology which can not only enable people affected by disease, illness or otherwise incapacitated, to perform their normal bodily functions but also improve the cognitive performances in humans.

Recently, in a study conducted by BrainGate, (a team of professional experts dealing with developing Brain-MachineInterface (BMI) technologies)the use of BMI in a clinical trial participant was demonstrated. With the help of BMI, the participant who had been suffering from cervical spinal cord injury was able to type words on the computer by merely picturizing the hand motions involved while writing each of the alphabets[14] . It was observed that the 65-year-old clinical trial participant could type close to 90 characters per minute, which happens to be more than the previous record speed of 40 characters per minute. The research team is of the opinion that with the use of the system, a person could type sentences at a rate similar to that of a person of the same age, typing on a smartphone. This has by far been one of the fastest and accurate techniques of decoding the handwriting by way of BMI and BrainGate is confident that over the years it will be in a position to develop useful human enhancement technologies that can permanently restore people's ability to communicate especially in cases where they have been incapacitated by illness or injury.

Likewise, Neuralink, the company founded by Mr. Elon Musk is into developing a chip that can connect the human brain to a digital device such as a phone or a computer. This chip which is proposed to be placed in a portion of the skull mandates the involvement of robotic surgeons who can perform the entire process with clear precision, thereby negating any element of human error. Since the chip can be connected wirelessly on a

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[13]Sarah N. Abdulkader, et al., Brain Computer Interfacing: Applications and Challenges, 16 Egyptian Informatics Journal, 215-230 (2015), shttps://doi.org/10.1016/j.eij.2015.06.002.

[14]Willett, F.R., Avansino, D.T., Hochberg, L.R. et al., High-performance brain-to-text communication via handwriting, Nature 593, 249-254 (2021), https://doi.org/10.1038/s41586-021-03506-2.

digital device, monitoring as well as communication becomes a lot easier[15]. In August 2020, Neuralink showcased to the entire world the functionality of the implant in pigs. Inthe live demo, three pigs were shown-one, which did not have any implant, the other, which had the implant and the third which previously used to have the implant. Clarifying how the implants posed zero adverse effects on the health of the pigs, Musk demonstrated how the real-time information from the brain cells could in fact be captured[16]. It was also explained as to how by virtue of the chip implant, the pigs could be trained to perform activities such as walking on the treadmills etc. Musk further revealed that pigs were chosen for the trial because their skull structure and the dura membrane were comparable to that of the humans[17]. Being granted the breakthrough device designation by the FDA, Neuralink is all set to start with the human trials this year[18].

Though the technology promises to cure medical issues such as paralysis, dementia, alzheimers, parkinson's, acute depression etc, there have been debates on how the process could emerge as the biggest threat to humanity[19]. The studies have established that BMIs could potentially be used to augment the human capacities, enabling an individual to connect to the internet, download new skills, store or upload data from and to a computer and thereby become an enhanced version of oneself or rather a 'smart human'[20]. However, the scientists as well as the human right activists have raised their apprehensions on the misuse of BMIs especially in cases where it would be used for the purpose of human enhancement. Taking into consideration the right of bodily autonomy guaranteed to the individuals, it would be difficult to define and restrict the use of brain-machine interface to certain specific cases. It would also be extremely difficult to categorize the individuals based on the purpose with which they have undergone the bodily implants. With the prospect of becoming enhanced humans, more people are likely to opt for BMIs, which would further necessitate the implementation of different mechanisms to evaluate and assess these individuals. Unless such definite mechanisms evolve, there is also a risk where enhanced and non-enhanced individuals are compared with one another to the disadvantage of the latter. The research studies and clinical trials undertaken over past few years reveal that BMI is an extremely probable future technology. Therefore, it is crucial to devise appropriate laws and regulations that can

[15]Fourneret, É. et al., The Hybridization of the Human with Brain Implants: The Neuralink Project, 29 Cambridge Q. Healthcare Ethics 668 (2020), doi:10.1017/S0963180120000419.

[16]Reuters, Elon Musk's Neuralink puts computer chips in animal brains, The Hindu (August 29,2020), available at https://www.thehindu.com/sci-tech/science/elon-musks-neuralink-puts-computer-chips-in-animal-brains/article32471569.ece, last accessed on June 17, 2021.

[17]Julia Carrie Wong, Neuralink: Elon Musk unveils pig he claims has computer implant in brain, The Guardian (August 28, 2021), available at https://www.theguardian.com/technology/2020/aug/28/neuralink-elon-musk-pig-computer-implant, last accessed on June 9, 2021.

[18]Ibid.

[19]Burwell et al.,Ethical Aspects of Brain Computer Interfaces: A Scoping Review,18 BMC Medical Ethics (2017), doi: 10.1186/s12910-017-0220-y.

[20]Ellen M. McGee, Becoming Borg to Become Immortal: Regulating Brain Implant Technologies, 16 Cambridge Q. Healthcare Ethics 291 (2007), available at https://heinonline-org.gnlu.remotlog.com/HOL/P?h=hein.journals/cqhe16&i=297, last accessed on June 15, 2021.

mitigate the deleterious effects of the technology, before it becomes widely used.

Conclusion

Today, people are compelled to transform themselves either out of a medical necessity or mandatory condition of employment or merely owing to an aspiration to augment the existing human capabilities so as to be enhanced individuals who are at a greater advantage in comparison to others. The scientific and technological advancements are already changing our perception towards human machine interface and is with time turning into a reality. As far as the implantations in humans are concerned, it may not be easy to distinguish implants made for therapeutic purpose from those made with an object of enhancement. For example, if a learning disorder such as dyslexia in a child can be resolved by means of a BMI, it would be difficult to determine whether it qualifies as an implant for therapeutic purpose or an enhancement; given the fact that dyslexia is not a disease but rather a condition a person is born with and often runs in families. Likewise, if a person suffers from dyscalculia, a learning disability in Maths or atelophobia, the fear of making mistakes or even athazagoraphobia, the fear of forgetting or being forgotten, by merely implanting a chip in their body which can store all the relevant data, should that be considered as a therapy or a form of human enhancement? In order to explain what qualifies as a human enhancement, it is primarily important to define what it means to be a 'normal human being'. Both human rights and fundamental rights are inherent rights that are guaranteed to every 'human being' or rather a 'person' or a citizen. If the right to bodily integrity allows a person to transform their body so as to become an enhanced human, can such individuals still come under the purview of a 'person'? According to Salmond, "So far as legal theory is concerned, a person is any being whom the law regards as capable of rights and duties"[21]. Even if the terminology 'person' is given a broader interpretation so as to include humans as well as trans humans, by virtue of the principle of justice, equity and good conscience, it would be unjust and unreasonable to consider an enhanced and non-enhanced individual on an equal footing. On the other hand, giving a narrow interpretation so as to exclude an enhanced human from the purview of a 'person' would mean that any individual who undergoes bodily modifications, be it for a therapeutic purpose or enhancement, ceases to be a 'person' and therefore does not enjoy any of the basic rights. All these raise a host of legal and ethical issues that requires careful consideration.

In the present times when both scientific and technological developments are advancing at a breakneck pace, it becomes really difficult to ascertain how much of technology is 'too much of technology' so as to be labelled as a 'threat to humanity'. The scientists who oppose the human enhancement technologies are of the opinion that these emerging technologies would open the door to injustice and societal harm; whereas, the supporters are of the view that these are tools to improve the human condition and give us new options to make our lives better[22]. In the current AI driven world, where humanoid robots have been granted citizenship[23]; the development and

[21]Valerie Kerruish, Jurisprudence as Ideology, Taylor & Francis, 2005

[22]Steve Clarke et al.,The Ethics of Human Enhancement: Understanding the Debate, Oxford University Press, 2016.

use of human enhancement technologies are certainly foreseeable. In the larger public interest, it is therefore essential to assess the potential risks and vulnerabilities in human enhancement technologies and further address the same through proactive laws that strike a balance between the emerging innovations and fundamental rights of the citizens.

[23] Cleve R. Wootson Jr., Saudi Arabia, which denies women equal rights, makes a robot a citizen, The Washington Post (October 29, 2017), available at https://www.washingtonpost. com/news/innovations/wp/2017/10/29/saudi-arabia-which-denies-women-equal-rights-makes-a-robot-a-citizen/, last accessed on June 27, 2021.

EXISTENTIALISM AND CONTEMPORARY LEGAL PHILOSOPHY

Dr. Vikram Singh[1] & Dr. Shweta Thakur[2]

Abstract

Life and its related dimension are part of human thinking. To make life more dignified and respectful is the essence of existentialism. Man is the measure of everything in society. Law and life can be understood in light of existentialism. Human consciousness is empirical and realistic. Expression of life is subjected to mind and matter, body and soul, faith, and reason and freedom and necessity. Man is an end or object in itself, depending upon the arrangement of the social, economic, and political systems. Law is for the improvement of human happiness. Freedom is the index of human happiness and human growth.

Key words

Human Life, Existentialism, Legal Philosophy

1. Introduction

Law should be made for the sake of man, not man is for the sake of the law[3]. *Eudemonia, hedonism, the law of nature, eternal law, dasein, logical positivism, realism empiricism*, and rationalism are the dimensions of legal philosophies which think about the improvement in human happiness. Human happiness, human freedom, and human justice is more important for human existence. Human being is not object in himself but it is end himself. Human pain, suffering, rights, moralities and sensitivities are the base of existentialism. Existence of law is depending on the respect for life. Existentialism is also about the human freedom, liberty and enjoyment of rights. Human happiness and improvement in human freedom and dignity and human respect is the primary function of this philosophy. Human mind is the creation of rationalism, impression, naturalism, realistic and transcendentalism[4]. Respect for life and meaningful life is the basic features of existentialism. Idea has the power to change the mind and human being can be changed on the reception of ideas. Modern legal philosophy is human centric, which emphasis on human development, humane freedom and enjoyment of life with respect

[1]Lloyd Law College Greater Noida; email id. Vikram.singh@lloydlawcollege.edu.in

[2]School of Law, Galgotias University; email id. joinshwetathakur@gmail.com

[3]George Lukas History and Human Consciousness Studies in Marxist Dialectic p 195 (Aakar Publication 2016)

[4]Transcendentalism is an American literary, philosophical, religious, and political movement of the early nineteenth century, centered around Ralph Waldo Emerson; Goodman, Russell, "Transcendentalism", The Stanford Encyclopedia of Philosophy (Winter 2019 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/win2019/entries/transcendentalism/>.last visited on 18thMay , 2021

and dignity. This is also essence of existentialism. "Existence precedes essence" is the famous quotation by Sartre[5]. Human existence, human needs and human freedom are deciding factors for human essence. Contemporary legal philosophy is dominated by existentialism. Human existence is everything. Existence will decide the essence. Social context adjudication and pragmatism and realism are the creation of this philosophy. Existentialism is influenced by the writing of Soren Kierkegaard, Karl Jasper, Sartre, Albert Camus Kafka and Martin Heidegger. Justice V.R Krishna has rightly pointed,

Perhaps, I have failed but some failures are higher than success, some defeats are nobler than victory. I am small man in his sombre evening but struggle for human justice through human law must continue[6].

2. Existentialism and Human Life

Social insecurity is the stimulus of social unrest in the society. In the ear of modern capitalism, every human being is lacking the time and busy with the worldly things. In other words, it can be said that modern society is timeless and spaceless society. Expression of life and condition of life and way of life are basic of mental, social and political discourse. Human being is the essence of humanity and mankind. Conditions of life and thoughts are the main component of legal consciousness. Man is time binding creation Life is all about the value system. Human sensitivity and human sensibilities are the base of human life. Man is for man. Social solidarity, economic solidarity are the essence and existence of the society. Renaissance, reformation and positivism are for improvement of human happiness and human prosperity Life, liberty and property are main component of law and its philosophies. Law is consisting of rights, duties, state and sovereign power of state. Law can never against the reason. Morality is science of good and evil. But all these concept, doctrine and principles cannot be ignored and avoided by human being. Law has influenced the human life directly or indirectly in term of right, duties, liabilities and obligations. Human life is the precious for every philosophical thinking, it's analysis and investigation. Many ideas, thoughts and philosophy are tried to redefine the human life. New modes of life are also developed whether it is industrialization, post industrialization and postmodern society. Human happiness, peace and security are the essence and existence of any law in the society.

Bentham *has rightly pointed out that, "Rights are the fruits of law and of the law alone, there is no right without law, no right contrary to law, no right anterior to law"*[7]. Human Being are mainly participatory in the senseless interactions in the world. This leads his distraction from basic phenomenon of life. These distractions always give rise to a question on the human existence. Life with meaning has the essence in human society. With the shaping of life, society can be shaped[8]. But on other hand, Man can feel as an alien or stranger in a universe,when suddenly divested of illusions and lights[9].

[5]Sartre, Being and Nothingness 97 (Routledge Publication, 2003).

[6]VR Krishna Iyer A random Miscellony Legal and other p 2 (People Publishing House 1984)

[7]Bentham, The Theory of Legislation 53 (Lexis Nexis, 2013).

[8]Albert Camus ,The Myth of Sisyphus p 5(Penguin Books ,2005)

[9]Ibid.

Existentialism is all about the relationship between man and his life, how he enjoyed the life and what is the role of different institutions in enhancing the meaning of life. These institutions whether it legal, social, political and economic are not independent from this philosophy and these institutions are tried to enhance the life in more meaningful way. Every person has the choice in the society to lead the life in his own way. Life has the kindness, compassion, pity, ethics and values as the human basic instinct. Life has its own parameters and sometimes these parameters are beyond the defined pattern of life. Life is regulated by experience. It is not based on logic and defined essence of principles. Here existence would define any essence and its logic in human life. Life is the reflection of human existence. Law also defines the relationship between man and life. Although life cannot be defined, what is meaning of life it is difficult to define. Integrity has no need of rules. Everything is permitted does not mean that nothing is forbidden[10]. Life will serve another life. The Expression begins, where thoughts end. The success of thoughts and thinking is depending on the learning process which is derived from the thoughts. Like other things, philosophy is manifestation of minds or the societies that gave them birth[11] .

Sartre has rightly pointed out that freedom is the foundation of all values[12]. Existentialism has been described as a philosophy for living[13]. Law is for human; human is not for law. This is basic relationship between existentialism and genesis of law in the society. Existence precedes the essence. Human existence speaks many things. Existence is the base of existentialism in the society. In the society, existentialism is the philosophy relating to the essence and existence of human being, where the human being is free in public and private spheres. Legal philosophy also talks about the human existence, which regulate the human action in the society. Existence of human being is the main cause for the development of law. Kindness, compassion does not belong to any system. These are the natural instinct of human being. Existence is always deciding the essence. This principle can apply on material conditions of the society. Law is also a reflection of the society. Law is not beyond the human existence. Law is for the innocent enjoyment of rights. Law is for human peace, liberty and freedom. Always there is law behind law, law of law and law beyond law. There are two dimension of philosophy, first dimension of philosophy is talking about the things and second is about the ideas. But where is the human being in these two schools of thinking that is basic question of Existentialism. Existentialism is human centric philosophy which discuss about the freedom of individual in public and private sphere, it also talks about the autonomy of human being. Law is for man; man is not for law. Sensitivity is the power behind the law. Law is as broader as human life. Law has to serve the society. And man is not here to the servant of the concepts but concepts are here to serve the life.

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[10]Id at 65

[11]Monroe C. Beardsley , The European Philosophers From Descartes to Nietzsche xiii(The Modern Library , New York)

[12]David C. Cooper Existentialism 175 (Blackwell Publihers1999)

[13]Id., at 173.

"Existentialism", is defined as the philosophical theory which deals with human existence and human freedom[14]. It is the philosophical thinking which is based on human autonomy. Major philosophers identified as existentialists were Karl Jaspers, Martin Heidegger, and Martin Buber in Germany, Jean Wahl and Gabriel Marcel in France, the Spaniards José Ortega y Gasset and Miguel de Unamuno, Russians Nikolai Berdyaev and Lev Shestov.[15]

3. Legal Positivism and Existentialism

The concept of justice is rationalistic, empiricist positivistic and existentialistic in nature. Social sense of justice is based on morality of the society. Social sense of justice is part of social process. It is no independent from the given society. Sense of justice is very related to the social theory. Family, social institution, political institution, economic institution are the elements which creates the social sense of justice. Existentialism is human specific philosophy where the human being is free in public and private sphere to enjoy the life. Existentialism takes its name from a philosophical reference to human existence. Law as social fact. Hartian's concept of law is the combination of primary or secondary rules. Law regulates the society. Law is the tool of social transformation, social change and social control. Law and society are the main concern of jurisprudential understanding of law. Justice is the favorite virtue of human civilization as discussed by the John Rawls. After Second World War lot of literature was written on the concept of justice and its development in the society. The idea of logical positivism was developed during 1920 and in 1930 with the sense of logical empiricism. Logical positivism was the essence of practicality of law in the society. Human needs and human beings both are essential for the logical positivism. Law is deeply rooted in the concept of justice. Behavior of law is to there to promote the justice-based society. Justice is the reflection of law and law is the reflection of justice. Justice is the part of structure, system and structuration of society. Justice is the combination of materialistic and idealistic approach of philosophy. Idea of justice always promotes the idea of human right, human dignity and human freedom. Satisfaction of human life is the purpose of justice-based society. Law and its related principles can be analyzed on the basis of justice-based society. Human happiness and human welfare are the part and parcel of justice-oriented society. Justice has metaphysical, transcendental and more over sometimes, it is also deontological in nature. Justice has the cultural, emotional and psychological dimensions. Justice is natural, positivistic, historical, sociological and realistic in nature. Judicial realism is the reinterpretation of law in form of justice. Behavior of law is the reflection of justice. Transparency, accountability and good governance are the basic feature of justice-based society. Justice has the social, realistic and philosophical meaning. Justice is distributive in nature and it is the social construction.

As per writing of Jeremy Bentham, legislation is the most appropriate method of social change and social transformation. Positivism is based on empiricism and rationalism

[14]Crowell, Steven, "Existentialism", The Stanford Encyclopedia of Philosophy (Summer 2020 Edition), Edward N. Zalta (ed.),available at https://plato.stanford.edu/archives/sum2020/entries/existentialism/>. Last visited on 1stMarch , 2021

[15]Ibid

There are two types of law that is natural law and positive law or divine law and human law. Law is the highest achievement of human civilization. Positivism was influenced by the writing of Hobbes, Bentham, John Austin, Kelson, Comte and H.L.A Hart

4. International law and Human Existence

Existentialism is core principle in various International and National Legal document. The U.N. Charter set forth the main goal of acknowledging the fundamental right of existence of all human beings. It was passed with the sole moto of enhancing human rights and basic freedoms, so that everyone can live with dignity[16]. In the year 1948, UDHR was adopted which is also based upon the equalitarian existentialism[17]. The acknowledgement of the due existence of the elderly people is given in U.N. General Assembly Resolution of 1991. U N. has asserts on States to include the principle of independence, self fulfilment and participation in their different National Programme in order to protect the rights of elderly people[18]. All these principles aimed, to secure the sense of existence of the elderly people alive, so that they can enjoy their lives to the fullest. Similar provisions are also there for women. She is entitled to participate in decision making in both political and public life. Her existence is acknowledged and as well as her right to vote, contest election as well as part of any public office is also acknowledged and provided[19]. State parties are also directed to ensure non-discrimination towards the women, in representation in their govt at international level as well as in participation in work of International Institutions[20]. Even efforts are made for acknowledging the due existence of women, by specifying a specific goal on gender equality as well as their upliftment[21]. Similar provisions ensuring the existence of women is provided by UNSC Resolution 1325 (2000) also. Her existence in Family life is also acknowledged by the Convention on the Elimination of All Forms of Discrimination against Women, by providing her right to actively participate with her spouse to plan her family, spacing between the children[22]. One more provision of this Convention which ensures her education right so that she can be participate in decision making at various aspects of her life is embodied in Article 10. The right of existence of the child is also acknowledged under Convention on the Rights of the Child. Its Article 6 is encompassing the existence right of every child. So, states are regulated to took all necessary steps for maximizing the survival and sustainable growth of child[23].

Existentialism is the core mandate of International Humanitarian Law also. It is mainly concerned with preservation of human existence by regulating the tactics used in

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[16]Article 1 , the Charter of United Nations 1945.

[17]Article 1, Universal Declaration of Human Rights

[18]United Nations Principles for Older Persons Adopted by General Assembly resolution 46/91 of 16 December 1991, available at https://www.ohchr.org/ en/professionalinterest /pages/olderpersons.aspx#:~:text=Adopted%20by%20General%20Assembly%20resolution%2046%2F91%20of%2016%20December%201991&text=1.,2.

[19]Article 7, Convention on the Elimination of All Forms of Discrimination against Women.

[20]Id at Article 8.

[21]Goal3, United Nations Millennium Development Goals

[22]Article 16, Convention on the Elimination of All Forms of Discrimination against Women

[23]Article 6, Convention of the Right of the Child

armed rebellions so that the causalities and destruction of property is very less. Its main instrument is Geneva Conventions as well as ENMOD. Additional Protocol I of Geneva Convention prohibits the indiscriminate attacks on humans, the combatants are only allowed to attack military objectives[24]. It also provide for the protection of the biological component of the environment, which are the key factor for existence of human being[25]. The Additional Protocol II of Geneva Convention is emphasizing on the protection of human existence. It provides a mandate for securing the things which are essential for the existence of human.[26] One more article of this Protocol, emphasizes on the safeguarding of all the installations containing dangerous forces[27]. Similarly the ENMOD is also revolving around the human existentialism. It banned the Environment Alteration Phenomenon as a method of hostility, so that a great long-lasting loss do not occur to the environment which question the survival of human existence[28]. The human existentialism is acknowledged as a right in different International Instruments. Mechanism for the Enforceability of its violation is also enclosed in Rome Statute of International Criminal Court. The violation of right of human existence in the form of Crime of Genocide[29], Crimes against Humanity[30], War Crimes[31], Crime of Aggression is executed under this[32].

The principle 1 of Rio Declaration is also acknowledging the principle of Existentialism where they are declared as epicenter of sustainability[33]. Stockholm Declaration also mandates the preservation of resources for ensuring the existence of present generation as well as future generation[34]. The principle 11 of the World Charter for Nature also put a complete ban on the activities which can result into irreversible degradation to the nature so that human existence can be preserved[35]. There are many other International instruments are adopted to secure the protection of environment so that existence of human can be secured such as, "The Chemical Weapon Convention Act 2000, UN Declaration on the Rights of Indigenous Peoples, International Convention for the

[24]Article 36, Additional Protocol I to The Geneva Convention.

[25]Id at Article 55

[26]Article 14, Additional Protocol II, Geneva Convention.

[27]Id., at Article 15

[28]Article 1, UN Convention on the Prohibition of Military or any Other Use of Environment Modification Techniques (ENMOD Convention, 1976) available at

[29]Article6, Rome Statue of International Criminal Court, available at https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf

[30]Article 7, Rome Statue defines Crime against Humanity; Rome Statute of International Criminal Court available at https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf

[31]Article 8 defines War Crimes; Rome Statute of International Criminal Court available at https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf

[32]Article 5, Rome Statute of International Criminal Court available at https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf

[33]Principle1, 2 and 24 of Rio Declaration, available at https://www.un.org/en/ development/desa/population /migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

[34]Principle 2, 3, 4, 5 and 21, Stockholm Declaration, available at https://legal.un.org /avl/pdf/ha/ dunche/dunche_e.pdf

[35]World Charter for Nature, available at https://digitallibrary.un.org/ record/39295?ln=en

Prevention of Pollution of the Sea by Oil, 1954, Vienna Convention on Civil Liability for Nuclear Damage, Non- Proliferation Treaty, Convention of the Prevention of Marine Pollution by Dumping of Wastes and Other Matter , Convention on the Protection of the World Cultural and Natural Heritage, The Convention on the Prohibition of the Development , Production and Stockpiling of Bacteriological and Toxic Weapons and their Destruction, etc.

Even if the person is a criminal, due regard is given in the criminal justice system to its dignity. Even in sentencing also due regard is given to its individuality. Article 14 of ICCPR obliges that every person against whom the criminal charges has been framed must be treated due regard to his dignity. He must be provided with legal assistance also, if needed. Must be treated and considered as innocent until the charges against him has been proved. The dignity of suspects and defendants should not be given due regard even during investigation. They should be treated with degraded treatment for extracting confession or evidences. So, all provisions of this international instrument are also giving due regards to the right of existence of even suspects[36].

With the advancement in society and effect of various social movements regarding the transgender rights, now the existence of the transgenders is also acknowledged and various countries has added new piece of legislations providing them equal rights as that of others. India is also one of the countries which has passed such legislation for transgenders. This piece of legislation embodied various principles suggested by expert panel at International Level on sexual orientation and gender identity[37]. They have proposed various rights such as : "The Right to the Universal Enjoyment of Human Rights, The Rights to Equality and Non-Discrimination, The Right to Recognition before the Law, The Right to Life , The Right to Security of the Person, The Right to Privacy, The Right to Freedom from Arbitrary Deprivation of Liberty, The Right to a Fair Trial , The Right to Treatment with Humanity while in Detention, The Right to Freedom from Torture and Cruel, Inhuman or Degrading Treatment or Punishment ,The Right to Protection from all Forms of Exploitation, Sale and Trafficking of Human Beings, The Right to Work , The Right to Social Security and to Other Social Protection Measures, The Right to an Adequate Standard of Living ,The Right to Adequate Housing ,The Right to Education, The Right to the Highest Attainable Standard of Health, Protection from Medical Abuses, The Right to Freedom of Opinion and Expression, The Right to Freedom of Peaceful Assembly and Association , The Right to Freedom of Thought, Conscience and Religion, The Right to Freedom of Movement, The Right to Seek Asylum, The Right to Found a Family, The Right to Participate in Public Life, The Right to Participate in Cultural Life , The Right to Promote Human Rights, The Right to Effective Remedies and Redress"[38]. The Transgender Persons (Protection of Rights) Act, 2019 enacted by India has acknowledged the right to choose their identity of transgenders[39]. Transgenders can

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[36]Article 14 of ICCPR available at https://www.ohchr.org/en /professionalinterest /pages/ccpr.aspx

[37]THE YOGYAKARTA PRINCIPLES, Principles on the application of international human rights law in relation to sexual orientation and gender identity available at https://www.refworld.org/pdfid/48244e602.pdf

[38]Ibid.

[39]Section 4, THE TRANSGENDER PERSONS (PROTECTION OF RIGHTS) ACT, 2019 available at http:// socialjustice. nic.in/writereaddata/UploadFile /TG%20 bill%20gazette. pdf

get a legal certification regarding their recognized identity[40]. Different types of obligations are imparted on the State to provide equal treatment to the transgenders in occupational opportunities, educational avenues etc[41].

5. Conclusion

In order to create the social stability law is necessary. This was the mandate of social contract thinking in 16th and 17th centuries. Law creates the social cohesiveness and where every person is dignifies member of the society and State is the important part of human thinking, state is indispensable context of human thinking and planning. Art of living together is the essence of law. Later part of nineteenth century or after second world war, legal philosophies are influenced by welfarism, human centric jurisprudence and realistic application of law. Internationalization of human rights is another example of human centric jurisprudence. Now in contemporary societies, law is an instrument of social engineering. Law is functional in nature. Legal philosophy covered basic three things, that is State of nature, nature of law and law of nature. Every human being is the dignified member of the society. Acknowledgement of other's right without any prejudice is essence of existentialism. Human being is absolutely free in public and private sphere of their life to enjoy his or her life. Human life cannot be regulated by procedure and technicalities of law apart from these things compassion, kindness, empathy, sympathy is regulating it . Decline of social and community attachment is not good for any society. Life is all about the value system. Existentialism is also about the human freedom, liberty and enjoyment of rights. Human happiness and improvement in human freedom and dignity and human respect is the primary function of this philosophy. Human mind is the creation of rationalism, impression, naturalism, realistic and transcendentalism[42]. Respect for life and meaningful life is the basic features of existentialism. Idea has the power to change the mind and human being can be changed on the reception of ideas. Over grown society, over gown institutions overgrown education are also influenced the society in different way. Human being is the base of humanity and he cannot be ignored and disrespected at any cost.

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[40]Id., at Section 5, 6.

[41]Id., at Chapter V and VI.

[42]Transcendentalism is an American literary, philosophical, religious, and political movement of the early nineteenth century, centered around Ralph Waldo Emerson; Goodman, Russell, "Transcendentalism", The Stanford Encyclopedia of Philosophy (Winter 2019 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/win2019/entries/transcendentalism/>.

SURVEY ON SCENARIO OF SEXUAL HARASSMENT IN HIGHER EDUCATIONAL INSTITUTIONS (HEIS) IN INDIA: A QUANTITATIVE ANALYSIS

Baij Nath*

Dr Sujata Bali**

Abstract

The aim of this study is to examine and study the scenario prevailing in various HEIs on pan India basis and arrive at an outcome in an objective manner. Specific focus of this study has been kept on whether there are cases of sexual harassment in HEIs; whether HEIs discourage filing of sexual harassment complaints to protect their image; whether HEIs impart awareness and constitute Internal Complaints Committees to prevent such incidents; whether POSH Act contains adequate monitoring provisions to enforce its implementation in HEIs; whether men indulge in sexual harassment to misuse his power to dominate the woman; whether there are areas under the POSH Act, which need amendment in order to enhance its effectiveness in Higher Educational Institutions.

Key words

Sexual Harassment in Higher Educational Institutions; Sexual Violence; Sexual Harassment; POSH Act; Gender Neutrality; Anonymous complaints; Challenges; HEIs; Students; Faculty; LGBT; Gender orientation

1. Scenario in HEIs

In regard especially to the Higher Educational Institutions (HEIs), according to one study, female students dextrously observe and steer clear of the instructors having harassingattitude[1]. However, in respect of HEIs' it has emerged that when sexual harassment happens in student-teacher relationships, it is the woman who often loses her scholastic morale who as a result becomes disenchanted about the male professors, as a whole. Such pervasiveness of sexual harassment has the snowballing effect of

*Director-Legal, University of Petroleum and Energy Studies

**Associate Professor, School of Law, University of Petroleum and Energy Studies

1baijnath@hotmail.com

[1]D. J. Benson and G. E. Thomson, "Sexual Harassment on a University Campus: The Confluence of Authority Relations, Sexual Interest and Gender Stratification," Social Problems, vol. 29, no. 3, pp. 236-251, Feb. 1982, doi: 10.2307/800157.

destroying the dedication of the female towards advancement of their goals in the male-governed environment[2].

In this light, the Researcher surveyed during the year 2021, relying on Google forms technique. The main objective of the survey was to assess the prevalence of sexual harassment in HEIs. A questionnaire was developed based on the various challenges in various studies. Questionnaire thus designed was circulated among past and present students of HEIs. The researcher received responses from across India. The questionnaire contained initial five questions asking for personal details of the respondents while the remaining eight questions were asked on the aspect of sexual harassment in HEIs in India, as follows:

1) Does your institution discourage the filing of sexual harassment complaints to protect its image?

2) Have you heard about cases of sexual harassment in your institution?

3) Was any training or education imparted to you on the prevention of sexual harassment, when you were inducted into your institution?

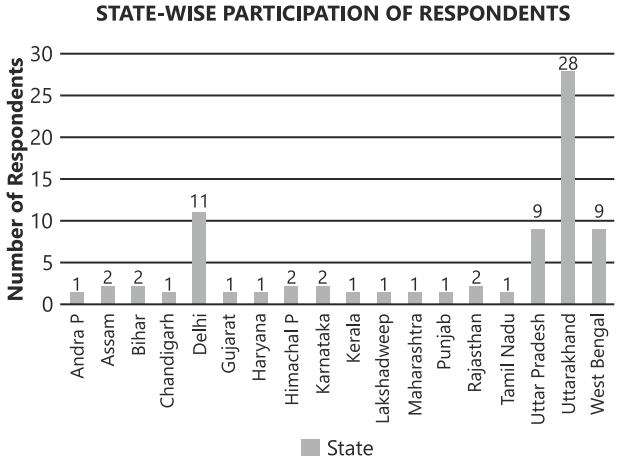
4) Are you aware of an 'Internal Complaint Committee' existing in your institution?

5) Do you think a lack of awareness of the provisions of the POSH Act makes people fall victim to sexual harassment?

6) Is there any relation of power with sexual harassment by men with formal authority over women, in your Institution?

7) Does POSH Act contain adequate monitoring provisions to enforce its implementation in your institution?

8) Are there any areas under the POSH Act, which need an amendment to enhance its effectiveness in Higher Educational Institutions?



[2]B. Lucas-Molina, A. A. Williamson, R. Pulido, and A. Pérez-Albéniz, "Effects of teacher-student relationships on peer harassment: A multilevel study," Psychology in the Schools, vol. 52, no. 3, pp. 298-315, Mar. 2015, doi: 10.1002/PITS.21822.

The States wise and cities wise spread of the respondents is contained under Figures 1 and 2, respectively. A reasonable spread of study across various States (18 States in all) and cities thereunder was attempted to consider the legal challenges faced by HEIs at the pan India level. In all 76 responses from 18 different States have been received. The gender-wise break-up of the respondents was 60.53% males and 39.47% females.

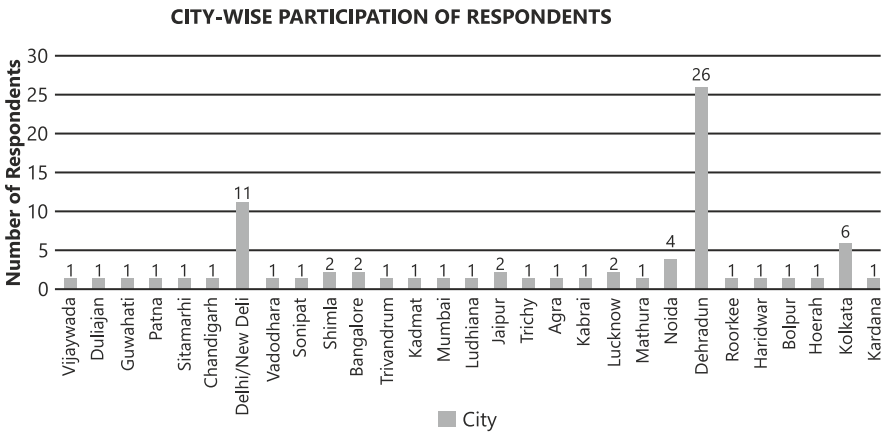


Figure 2. City-wise representation of Respondents.

2. Whether HEIs discourage the filing of sexual harassment complaints to protect their image?

According to regulation 2(k) (i) and (ii), of the University Grants Commission (Prevention, prohibition and redressal of Sexual Harassment of Women Employees and Students in Higher Educational Institutions) Regulations, 2015 (UGC Regulations, 2015), sexual harassment has been defined, as follows:

"(I) An unwanted sexual act that has sexual undertones that are persistent and which demeans or humiliates one or more individuals. This behavior is often carried out with the intent of inducing submission or threatening submission.(whether directly or by implication), namely; -

(a) Any unwanted sexual activity, whether physical, verbal, or nonverbal;

(b) solicitation or demand for sexual favours;

(c) making sexually tinged comments

(d) Advances and physical contact; or

(e) Displaying pornographic material

(ii) Any individual or group of people who has been subjected to or connected to any explicit or implicit sexual behavior is guilty of committing a crime.-

(a) As a form of payment for sexual favours, the promise of preferential treatment is implied or explicit.;

(b) The implied or explicit threat of detrimental treatment in the conduct of work;

(c) The threat of retaliation in the workplace, whether implicit or explicit.;

(d) Making a learning atmosphere that is intimidating, insulting, or unpleasant

(e) Embarrassing treatment likely to jeopardise the person's health, safety, dignity, or physical integrity;"

Apparently, the provisions No. (a) and (b), as afore said,originate from a reality resting on a skewed power-structure in favour of the employer, supervising authorities as against the subordinates[3]. Spirit underlying these two provisions reflects expectation or demand of sexual favour by the superior from the one lower in the hierarchy, in lieu of academic or other benefits/decisions etc… The third provision addresses the existence of a hostile work environment where the hostility interferes with the satisfactory work performance of the victim[4] .

In view of the above, the researcher asked the respondents whether their institutions were driven by any prejudices while dealing with the grievances relating to the sexual harassment. They were specifically asked whether their institutions discourage the filing of sexual harassment complaints to protect their image. The study revealed that 72.37% of the respondents were of the view that their institutions did not discourage the filing of sexual harassment complaints to protect their image. The large differences between the two groups are seen as significant by the researcher. Thus, this was an interesting outcome of this study, which establishes the fact that today's HEIs are

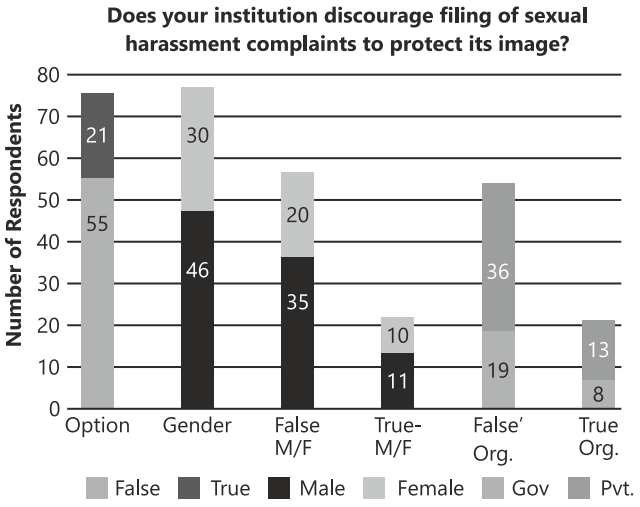


Figure 3. Survey analysis on "Does your institution discourage filing of sexual harassment complaints to protect its image?".

[3]D. Smit and V. du Plessis??, "Sexual Harassment in the Education Sector," Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad, vol. 14, no. 6, pp. 173-217, Jan. 2012, doi: 10.4314/pelj.v14i6.6.

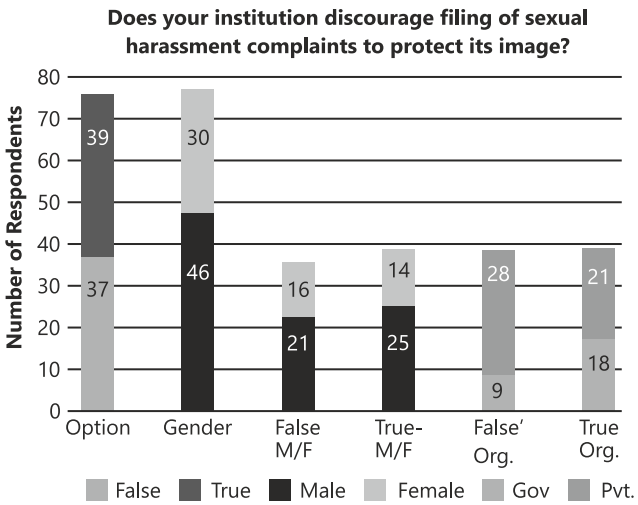
[4]O. J. Ladebo, "Sexual Harassment in Academia in Nigeria: How Real?," African Sociological Review / Revue Africaine de Sociologie, vol. 7, no. 1, pp. 117-130, Apr. 2004, doi: 10.4314/asr.v7i1.23133.

demonstrating a more positive approach towards encouraging the filing of sexual harassment complaints in their institutions. However, out of the total respondents who have given positive feedback majority belongs to males constituting a share of 46.05% while 26.31% of women respondents submitted their positive feedback. Thus, 27.63% of the total respondents stated that their institution discourage the filing of sexual harassment complaints to protect its image and among them 13.16% population were women. (Figure 3).

3. Prevalence of cases of sexual harassment in institutions

To study the existance of sexual harassment in HEIs, respondents were asked whether they have heard about cases of sexual harassment in their institutions. 51.32% of the respondents confirmed having heard about such cases in their institutions while the remaining 48.68% gave different feedback. However, when the responses were analyzed about Government vis-à-vis Private institutions, a significant outcome emerged. 66.67% of respondents from Government institutions stated that there were cases of sexual harassment in their HEIs while in Private HEIs 42.86% of the respondents stated the same. The response gives an obvious outcome that as compare to Private the Government HEIsregister more cases of sexual harassment. (Figure 4)

Figure 4. Second survey analysis on "Prevalence of cases of sexual harassment in HEIs".



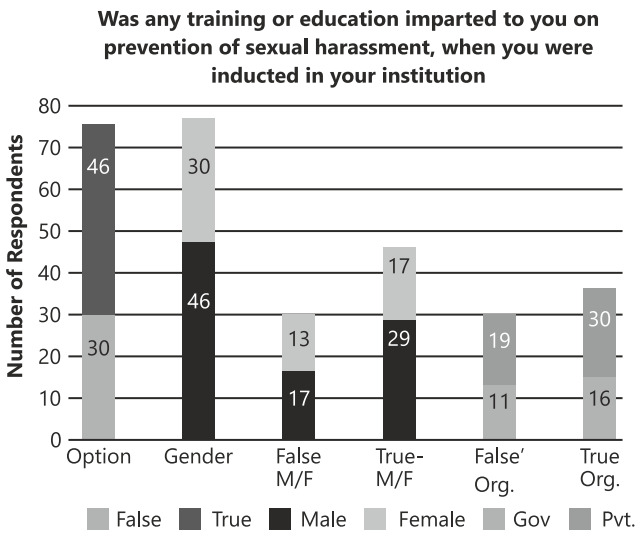
4. Whether any training or education imparted to you on prevention of sexual harassment, when you were inducted into your institution?

Section 19 of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (POSH Act) prescribes for the duties of the employer. Sub-section (c) thereof provides that every employer shall organize workshops and awareness programs at regular intervals for sensitizing the employees with the provisions of the Act and orientation programs for the members of the Internal

Committee in the manner as may be prescribed. Similarly, regulation 3 (c) of the UGC Regulations, 2015 prescribes that every HEI shall organize training programs or as the case may be, a workshop for the officers for the officer, functionaries, faculty and students, as indicated in the SAKSHAM Report (Measures for Ensuring the Safety of Women and Programs for Gender Sensitization on Campuses) of the Commission, to sensitize them and ensure knowledge and wariness of the rights, entitlements and responsibilities enshrined in the Act and under these regulations.

In view thereof, the respondents were asked whether any training or education imparted to you on prevention of sexual harassment, when you were inducted in your institution. 60.53% of the respondents answered favourably while the remaining 39.47 denied any training or education imparted having been imparted to them on prevention of sexual harassment when they were admitted in their institution. Thus, the significant majority of respondents stated that HEIs were discharging their responsibility towards this aspect satisfactorily. Interestingly, out of the 60.53% of the respondents who confirmed the satisfactory performance of HEIs in this regard, the majority of 65.22% were belonging to Private Institutions. Thus, a little bit of complacency was seen on the part of the Government institutions when it comes to discharging their responsibility towards this aspect. (Figure 5).

Figure 5.Survey analysis on Whether 'Internal Complaint Committee' has been in place in the institution.



As per Section 4 of the POSH Act, establishing an Internal Committee (IC) is mandatory in every establishment, which has 10 or more employees. Similarly, it has been made mandatory under Regulation 4 of the UGC Regulations, 2015 for every Executive Authority to constitute an Internal Complaints Committee (ICC) with an inbuilt mechanism for gender sensitization against sexual harassment. However, Fostering

Safe Workplaces[5] , at the behest of the Federation of Indian Chamber of Commerce and Industry conducted a study during the year 2015. The study reveals that more than 35% of domestic companies and around 25% of MNCs had not yet constituted ICs in their respective establishments. The study further reveals that out of the 120 companies, about 50% admitted that their respective IC members were without any proper training. EY Fraud Investigation & Dispute Services conducted a survey titled 'Reining in sexual harassment at the workplace in India' to measure corporate India's perception of the transformation in the wake of the POSH Act. The key findings reveal the focus of the employers on driving an unfettering change, although uncertainty, caution and contemplation are still highly prevalent!

It is a fact that as per Section 4 of the POSH Act it is mandatory on the part of the employer to constitute an Internal Committee to adjudicate upon the complaints of sexual harassment. Similarly, regulation 4 of the UGC Regulations, 2015 makes it obligatory on the part of every executive Authority of the HEI to constitute an Internal Complaints Committee.

According to these statutory provisions, a need is felt by the researcher to assess the present scenario, especially in HEIs, because the study conducted by EY during the year 2015 was not focused on HEIs. The respondents, therefore, were asked a specific question, "Are you aware of an 'Internal Complaint Committee' existing in your institution?" In response significantly 85.53% of the respondents stated that there is an ICC in their institution, while a meagre population of 14.47% stated in negative. Out of this 85.53% of the respondents, 61.54% were belonging to the male category while the remaining 38.46% were females. Thus, the study proves that there was satisfactory compliance of Section 4 and Regulation 4 apparently. In the absence to further any query having been asked from the respondents as to whether the constitution of the committees was as per norms, there was no outcome in this regard in the present study. (Figure 6).

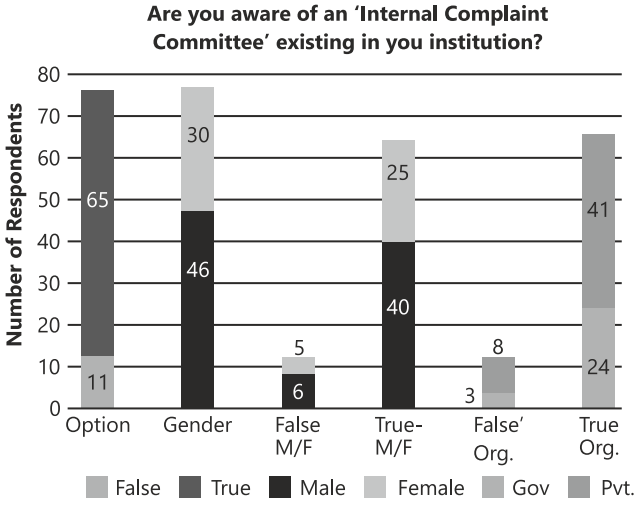


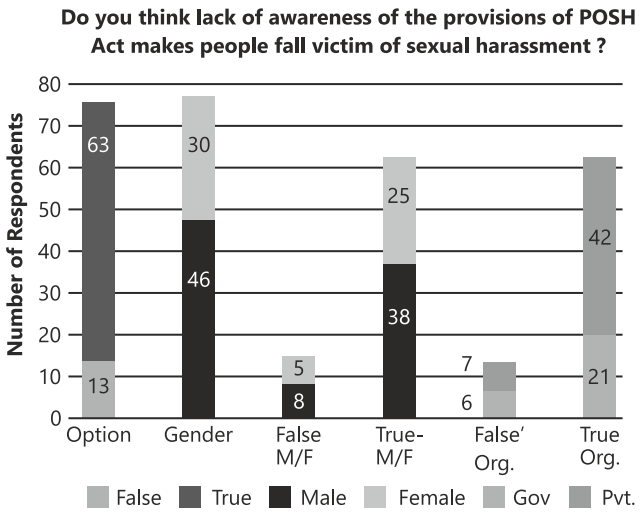
Figure 6. Survey analysis on "Are you aware of an 'Internal Complaint Committee' existing in your institution".

[5]FICCI, "Fostering safe workplaces," 2013.

6. Whether lack of awareness of the provisions of the POSH Act makes people fall victim to sexual harassment?

Further, the researcher has looked into the aspect of whether lack of awareness of the provisions of the POSH Act makes people fall victim to sexual harassment. The general pattern of response that emerged from the study was that notwithstanding whatever has been done, there is an alarming lack of awareness regarding provisions of the POSH Act. Thus, it can also be inferred that there is also a lack of awareness about extant UGC Regulations, 2015 among the students, faculty and non-faculty at HEIs. Out of the total respondents, 82.89% respondents have confirmed a lack of awareness of these provisions, out of which 60.32% are males and 39.68% are females. The majority of respondents giving negative responses belongs to males constituting a share of 60.32% while 39.68% of women respondents submitted their negative responses. Thus, 82.89% of the total respondents stated that there is an alarming lack of awareness regarding the provisions of the POSH Act. The large differences between the two groups are seen as significant by the researcher. Hence, the outcome is very relevant and credible. (Figure 7).

Figure 7. Survey analysis on "'Do you think lack of awareness of the provisions of POSH Act makes people fall victim of sexual harassment".



7. Whether there is any relation of power with sexual harassment by men with formal authority over women?

During a study it has emerged that it remains always the most popular defence that they are the students who harass the faculty. Nevertheless, there may be cases where students are found creating sexual annoyance but this cannot be treated as sexual harassment due to lack of power hierarchy with the students. However, such sexual annoyance cannot justify an act of sexual harassment. It has also been witnessed that the defence of mutual consent is rampantly used by male faculty. However, such a defence also could not withstand fair scrutiny mainly because the sexual harassment alleged to be based on a consensual relationship, is misplaced in the student-faculty

relationship. This again shall be because of the power imbalance and the extent of the role inequality[6,7].

Apparent analysis of responses received against the question of whether there is any relation of power with sexual harassment by men with formal authority over women, reveals almost an equal distribution of responses from rival groups. As many as 48.68% of the respondents feel that there is a relation of power with sexual harassment by men with formal authority over women, whereas 51.32% of respondents feel otherwise. However, out of the 51.32% of the respondents who feel otherwise, an overwhelming 71.79% are males whereas a meagre 28.21% belong to the female category. Thus, the study reveals that most of the males do not support the idea that there is any relation of power with sexual harassment by men with formal authority over women. But when it comes to the females, they overwhelmingly support the idea. Significantly under the group who believe that there is a relation of power with sexual harassment by men with formal authority over women, the majority belongs to the female category. 51.35% of the females have confirmed their experience that there is a relation of power with sexual harassment by men with formal authority over women, while 48.65% of the male respondents were having a different opinion. Thus, the survey reflects the fact that the existing power hierarchy of males over females does not fade away in an environment of educational institutions, as well. (Figure 8).

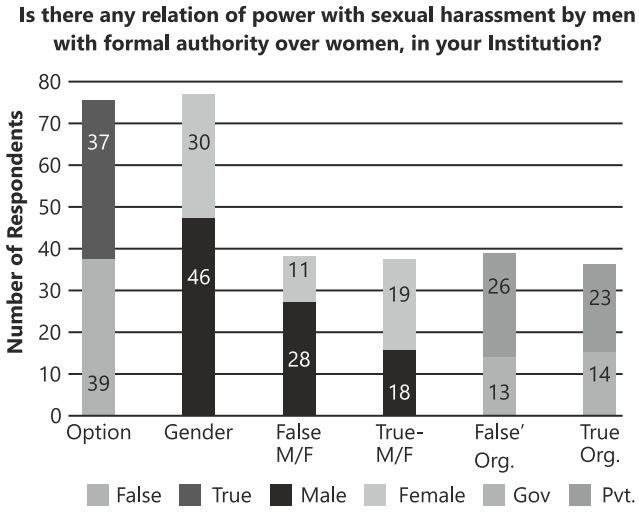


Figure 8. Survey analysis on "Is there any relation of power with sexual harassment by men with formal authority over women, in your Institution".

[6]D. Smit and V. du Plessis??, "Sexual Harassment in the Education Sector," Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad, vol. 14, no. 6, pp. 173-217, Jan. 2012, doi: 10.4314/pelj.v14i6.6.

[7]D. Smit and V. du Plessis, "Sexual Harassment in the Education Sector," Potchefstroom Electronic Law Journal, vol. 14, no. 6, pp. 172-217, Jun. 2017, doi: 10.17159/1727-3781/2011/v14i6a2613.

8. Whether POSH Act contains adequate monitoring provisions to enforce its implementation in HEIs?

Chapter VIII of the POSH Act contains miscellaneous provisions from its Section 21 to 26. Section 21 requires the IC and LC to submit annual reports; Section 22 requires the employers to include information regarding the number of cases filed in their respective annual report; Section 23 mandates appropriate Government to monitor implementation and to maintain data on the number of cases filed and disposed of; Section 24 casts responsibility on the appropriate Government to take measures to publicize the POSH Act; Section 25 vests the power with the appropriate Government to call for information and inspection of record of any employer, if it is necessary for the public interest; and Section 26 prescribes for the penalty for non-compliance with the provisions of the Act.

Similarly, under UGC Regulations, 2015 its regulation 3 prescribes for the responsibilities of the HEIs and regulation 3.2 provides for Supportive Measures to be taken up by the HEIs.

Therefore, in this backdrop, a question was asked from the respondents, "Does POSH Act contain adequate monitoring provisions to enforce its implementation in your institution?"

As many as 76.32% of the respondents feel that POSH Act contains adequate monitoring provisions to enforce its implementation in their respective institutions. Only a meagre population of 23.68% felt the opposite of it. Out of the 76.32% who expressed their satisfaction about the adequacy of monitoring provisions in the POSH Act, 62.07% were males and 37.93% were females. Significantly, an overwhelming 63.79% of respondents from Private Institutions demonstrated their satisfaction with these provisions. (Figure 8).

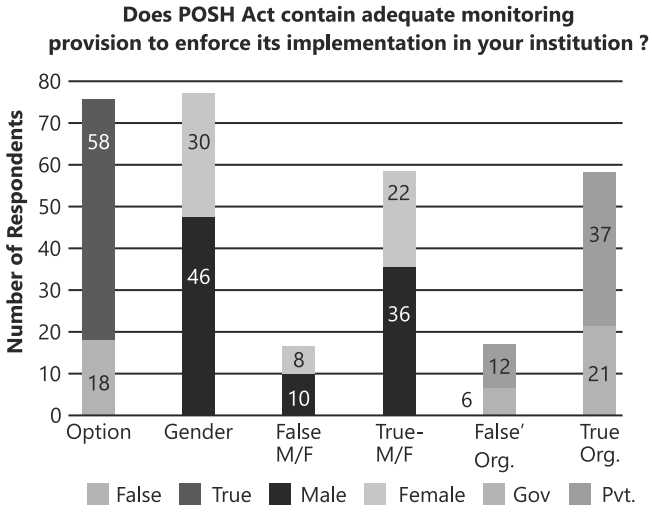


Figure 8. Survey analysis on "Does POSH Act contain adequate monitoring provisions to enforce its implementation in your institution".

9. Whether there are any areas under the POSH Act, which need an amendment to enhance its effectiveness in Higher Educational Institutions?

Further, the researcher has looked into the aspect of whether there are any areas under the POSH Act, which need an amendment to enhance its effectiveness in Higher Educational Institutions. The outcome of the study is interesting, which is skewed in as much as 80.26% of respondents have stated that there are areas under the POSH Act, which need an amendment to enhance its effectiveness in Higher Educational Institutions. The large differences between the two groups are seen as significant by the researcher, which makes the outcome to be reliable. The study shows that out of the above said 80.26% of responses, 54.10% were males and 45.90% are females. Thus, it can also be inferred that there is also a need to identify the areas under the extant UGC Regulations, 2015 to make the provisions more effective for its implementation to derive the desired objectives. Interestingly, 65.57% of the respondents from private institutions have felt that there exists such a need. (Figure 9).

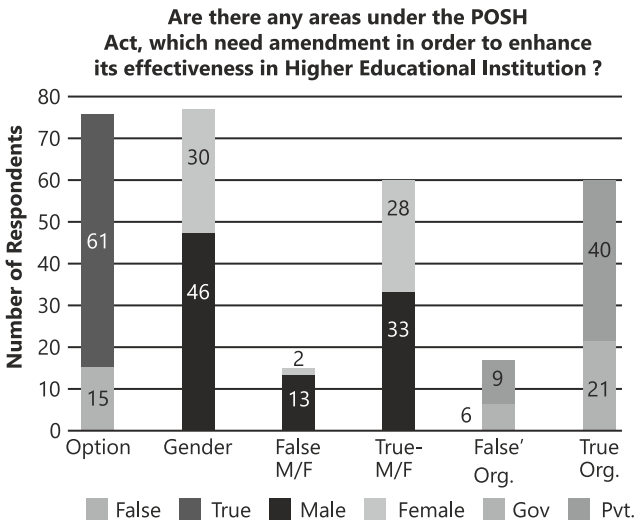


Figure 9. Survey analysis on "Are there any areas under the POSH Act, which need amendment in order to enhance its effectiveness in Higher Educational Institutions".

10. Challenges

10.1. Lack of Gender Neutrality of the POSH Act:

The researcher then stated that the POSH Act should be broadened to include sexual orientation and gender identity.

One of the questions before the researcher was whether there is a need to broaden the scope of the POSH Act to evolve it as a gender-neutral Act. A study conducted in 1982 stated that many accounts of sexual harassment experienced by women are often balanced with male examples of harassment. The study also noted that these accounts

are often labeled as gender-neutral[8,9]." According to a study conducted by the research firm PeW, in 2014, over 25% of women and 13% of men experience sexual harassment online[10].

In 2019, India's legal framework did not allow women to be prosecuted for sexually harassing men. This report noted that even though there was a law against sexual harassment, it did not provide for prosecution for offences against men[11]. In 77 countries, including the U.S. and Australia, have gender neutral laws. This is despite the lack of data on sexual harassment.It is almost as if society still believes that women can't harass men. A 2010 survey revealed that 19% of male respondents experienced sexual harassment.A survey conducted by PricewaterhouseCoopers in India revealed that almost half of the respondents experienced sexual harassment at work. The same study conducted by the company in 2013 had revealed that 43 per cent of male professionals experienced sexual advances from their colleagues.

While the data for sexual harassment of men in India is almost non-existent as most of such cases go unreported[12], the same year i.e. in the year 2019, the corresponding data[13] from US Equal Employment Opportunity Commission shows that about 16.5% of complaints of sexual harassment the commission receives annually are from men.

However, in the present scenario, one also needs to take into consideration the evolution of society and the diverse nature of our students, faculty and workforce today. Most importantly, with the removal of section 377[14], a consensual homosexual relationship has been legalized. In addition, the Transgender Persons (Protection of Rights) Act, 2019[15] prohibits discrimination against a transgender person in employment matters including recruitment and promotion. Hence, the scope of the Act may demand a broader perspective to promise a fair and secure workplace for all the employees

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[8]D. J. Benson and G. E. Thomson, "Sexual Harassment on a University Campus: The Confluence of Authority Relations, Sexual Interest and Gender Stratification," Social Problems, vol. 29, no. 3, pp. 236-251, Feb. 1982, doi: 10.2307/800157.

[9]"Sexual Harassment Practical Strategies: How Do I Deal with Sexual Harassment? - Workplace Fairness," Accessed: Oct. 06, 2021. [Online]. Available: https://www.workplacefairness.org/sexual-harassment-practical-strategies.

[10]"Sexual Harassment of Men." http://www.legalservicesindia.com/article/2039/Sexual-Harassment-of-Men.html (accessed Oct. 06, 2021).

[11]"Why India Inc. needs to protect Men against Sexual Harassment at Workplaces in India- case for gender neutral policies - Ungender | Empanelled by GoI." https://www.ungender.in/why-india-inc-needs-to-protect-men-against-sexual-harassment-at-workplaces-in-india-case-for-gender-neutral-policies/ (accessed Oct. 06, 2021).

[12]"Gender Neutrality & Sexual Harassment Laws In India: An Overview - Employment and HR - India." https://www.mondaq.com/india/employee-rights-labour-relations/988146/gender-neutrality-sexual-harassment-laws-in-india-an-overview (accessed Oct. 06, 2021).

[13]"Charges Alleging Sex-Based Harassment (Charges filed with EEOC) FY 2010 - FY 2020 | U.S. Equal Employment Opportunity Commission." https://www.eeoc.gov/statistics/charges-alleging-sex-based-harassment-charges-filed-eeoc-fy-2010-fy-2020 (accessed Oct. 06, 2021).

[14]Navtej Singh Johar vs Union Of India Ministry Of Law And ... on 6 September, 2018." https://indiankanoon.org/doc/168671544/ (accessed Oct. 06, 2021).

[15]National Legal Service Auth vs Union Of India & Ors on 15 April, 2014." https:// indiankanoon.org/doc/193543132/ (accessed Oct. 06, 2021).

irrespective of their gender and sexual orientation. This becomes essential keeping in view the dynamics of modern India where the composition of the workplace has been evolved, which not only comprises women and men but also the employees from the LGBT community as well.

10.2 Non-admissibility of Anonymous Complaints

The other issue emerging before the researcher is regarding the admissibility of anonymous complaints of sexual harassment. Under the POSH Act, there is no provision to entertain anonymous complaints. According to one study[16], in several cases the aggrieved women opt not to disclose their identity to save themselves from getting identified and to insulate themselves from any stigma being attached or facing any societal pressures. In order to address such issues a greater sensitivity shall be required on the part of the employers. Such situations shall rather warrant the employers to refrain from giving a cold shoulder to such complaints or to ignore or disregard the responsibilities bestowed on him under POSH Act. Needless to say that the employers while dealing with such complaints shall duly regard the confidentiality of the concerned parties. The approach should be to create an environment of confidence and security in the minds of the people that they shall be protected by the employers even in all such adverse situations. It is seen that in many situations the victim is afraid to file the complaint due to various constraints, pressures and or threats. In such a situation, the predator continues with the harassment with impunity, though many of the group members are aware of the act of harassment. Therefore, the study also focuses on the feasibility of making admissible anonymous complaints under the Act and the UGC Regulation, to further enhance their effectiveness. There is a need to realize that in many situations the victim is afraid to file the complaint due to various constraints, pressures and threats. If anonymous complaints are made admissible under the Act, it will further enhance the effectiveness of the same.

11. Concluding Remarks & Suggestions

In respect of HEIs it has emerged that when sexual harassment happens in student-teacher relationships, it is the woman who often loses her scholastic morale who as a result becomes disenchanted about the male professors, as a whole. Such pervasiveness of sexual harassment has the snowballing effect of destroying the dedication of the female towards advancement of their goals in the male-governed environment[17]. Thus, following conclusions & suggestions can be drawn after this study: firstly, on the part of HEIs, it requires a more focused and serious approach in implementing the provisions of the Act, and a zero tolerance while dealing with the complaints. Secondly, there is a

[16]Challenges Faced by Employers in Addressing Sexual Harassment Complaints - India Corporate Law." https://corporate.cyrilamarchandblogs.com/2016/08/challenges-faced-employers-addressing-sexual-harassment-complaints/ (accessed Oct. 06, 2021).

[17]B. Lucas-Molina, A. A. Williamson, R. Pulido, and A. Pérez-Albéniz, "Effects of teacher-student relationships on peer harassment: A multilevel study," Psychology in the Schools, vol. 52, no. 3, pp. 298-315, Mar. 2015, doi: 10.1002/PITS.21822.

need to broaden the scope of the POSH Act to evolve it as a gender-neutral Act including for the male & LGBT students in educational institutions. It is further needed because the present Act does not include other genders and sexual orientations.

This will further pave the way to promise a fair and secure workplace for all the employees irrespective of their gender and sexual orientation. The third conclusion is regarding the non-admissibility of anonymous complaints. It has surfaced during the study that in many situations the victim is afraid to file the complaint due to various constraints, pressures and threats. In such a situation, the predator continues with the harassment with impunity, though everybody knows about the act of harassment. If anonymous complaints are made admissible under the Act, it will further enhance the effectiveness of the same.

The analysis of the survey done by the researcher shows that though there is awareness about the POSH Act in HEIs, nevertheless, there exists a need for improving the law as well as practices for prevention of sexual harassment at Higher Educational Institutions.

JUDICIARY AND TRUE ASSESSMENT OF SCIENTIFIC EVIDENCE: SOME ISSUES

Dr. Anjum Parvez*
Prof. (Dr.) Rajesh Bahuguna**

Abstract

Evidence obtained by using scientific methods are often revealed those hidden facts which cannot be traced by simple methods of traditional investigation. Yet, for judges it would not be easy task to appreciate scientific evidence in a legal dispute under adjudication because a judge usually lacks scientific expertise and, reliance on expert witness depends on his impartiality and categorical explanation of scientific facts related to such dispute. In this Article, attempt has been made to evaluate the various factors responsible for causing trouble for judges to understand the correct value of scientific evidence.

Key words

Judges, Law, Courts, Scientific evidence

1. Introduction

Courts cannot deliver judgments of justice unless evidence of merit adduced before them by the parties to the litigation (civil or criminal), and, much depends upon the quality of evidence so produced in terms of its admissibility. Taking the hypothesis considering the Law and Courts as Social Institutions[1] , both need the human agency for their effectiveness. Judges of Courts, who deliver the judgments and, Police officers, who investigate and collect evidence, and Lawyers, who present the evidence so collected before the courts, play the indispensible role in the entire process. The confusing concept of justice, which appears sometimes reasonable while unreasonable on other occasions, coupled with complicated procedure of law makes the matter more aggravated from the point of view of party who, despite of all clarity on his/her end fails to prove the relevant facts.

However, objective of each and every law in a democratic set-up, generally (but not in all cases), is to ensure justice to mankind which is, discreetly, based on foundation of truth, impartiality, independence and expertise of the persons concerned with the responsibility of maintaining the law and order and, of dispatching the justice. Any aid in ensuring the legal justice from any sector of any branch of knowledge or field has always

*Associate Professor, Law College Dehradun, Uttaranchal University, Dehradun

** Pro Vice Chancellor & Dean , Uttaranchal University, Law College Dehradun,, Dehradun

[1]Deniela Berti and Gilles Tarabout (2018) "Through the Lens of the Law: Court Cases and Social Issues in India" 17 South Asia Multi disciplinary Journal 3.

been always welcome, be it from history, literature, philosophy, anthropology, social sciences or physical or biological science including technology and engineering.

2. Science in the Courtrooms

Before proceeding further, one must keep in mind that law has its own rules on the parameters of which it deals with facts while science has its specific methods and techniques on the application of which it analyze the facts. When a fact in dispute acquire a legal character and comes before the Court, the same get the colour of different dimensions, i,e, vision from the angle of law and vision from the angle of science, both entirely different. It is an absolute misconception from the angle of law and legal procedure that any branch of knowledge including science, which may be of utility in terms of proving the evidence, can be regarded as perfect and unimpeachable because courts need the evidence, which cannot be always based on philosophical and meta-physical arguments. However, many believe that physical and biological sciences are un-impeachable fields of knowledge and scientific methods & techniques are, generally, accurate and perfect because they are based on actual existing physical facts in this world. Science has been in existence since time immemorial, and now science and technology go along, nevertheless, it was not true if we explore history of science which tells us that in earlier ages science and technology were almost independent activities, having no inter-link with each other.

One practical problem often arise that centuries or decades would elapse before a new scientific idea of utility could have been transformed into a useful application in the arena of legal justice of human life given the fact of its reliability in certain circumstances in every legal dispute. On historic facts, we find that engineering developed largely independent of science, and was guided by experience and tradition, yet today its doctrines are interconnected with physical sciences[2]. Markanday Katju (2000) claims that it is the modern age that science and technology have become closely interlinked, and the gap between them has further narrowed down[3] after the subsequent developments and rectified enormously with the emergence of diverse branches like chemical sciences, biological sciences, forensic sciences and many others that now, it is safe to say this modern age is indeed belongs to science and technology without any sort of skeptics. Role of forensic science, which is a combination of all branches of science, has become vital now in the process of investigation conducted by the Investigation Officer of any crime and for proving a fact.

3. Question of Legality of Scientific Evidence before the Court

However, as one can be convince (as usually the case of layman's belief) about the exactness of science in unearthing the truth of any matter of fact under investigation, particularly in the criminal cases, the same is neither the belief nor approach of the courts around the world as they don't rely as much upon the science and scientific methods juxtaposition from the ordinary belief of common masses and scientific community.

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[2]Justice Markandey Katju, (2000) Law in the Scientific Era: The Theory of Dynamic Positivism 1Universal Law Publishing Co. Pvt. Ltd., Delhi.

[3]Ibid

In the words of C. Michael Bowers (2014) "Several of forensic science thought for many years to be of sound basis have been criticized as being based on false assumptions, poor science, inaccurate techniques, and erroneous interpretations. Unfortunately, some of these criticisms have turned out to be true as well founded[4] ".

Central to this is an understanding of how the scientist's findings can be properly interpreted, evaluated and communicated to the court and how the court draws appropriate inferences from the expert opinion in reaching its decision on the ultimate issue. In doing so, the court must necessarily be satisfied that the science is valid and the evidence relevant to its deliberations[5].

Although, the concept of relevance has been enshrined in law across most jurisdictions for many years, in more recent times, questions have emerged around the world about wider aspects of the presentation of scientific evidence to the court and the role of the scientist as an expert witness. Many reasons including significant advances in scientific techniques, the need for investigators to deal with more complex and high profile crimes, increasing attention to these concerns and the ongoing responses of the legal profession and lawmakers to those events, are responsible for such skepticism relating to scientific findings and its status before court of law.

What is scientific knowledge and when it is reliable? Answer of this question may be simple in our simplistic life for the simplistic purposes, yet, it becomes difficult in the complex procedure of complicated problems arise before the courts in the form of disputes of civil or criminal nature. Identify of biological materials of a person may be accomplished only through medical tests i.e. Luminol Test, BCIP Test (Bromo-Chloro-Indolyl Phosphate), Phenolphtalein Test[6] etc. Not only this, but the common medical examination tests also play their role in determination of disputes in the form of relevant fact, if admitted by the courts. However, the question of accuracy of tests has always been the debatable as slightest error may tarnish attempt to ensure justice. These deceptively simple questions have been source of endless controversy. In the courtroom, the outcomes of criminal, paternity, environmental and medico-legal cases often turn on scientific evidence, the reliability of which may be hotly contested[7]. Lack of proper knowledge of science on the part of a judge may damage the case if he could not understand the facts under the light of scientific importance even it may not be the matter of *per incuriam*.

Jeroen de Ridder (2019) is of the opinion that scientific knowledge is the most reliable knowledge at least about certain subject matters[8]. He further acknowledged that

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[4]C. Michael Bowers (2014) Forensic Science Testimony: Science, Law and Expert Evidence 23 Academic Press-An Imprint of Elsevier, New York.

[5] Ibid.

[6]Bureau of Criminal Apprehension- Minnesota Department of Public Safety (U.S.) available on www.dps.mn.gov/bca Last visited on 24th June, 2021.

[7]Kenneth R. Foster and Peter W. Huber, (1999) Judging Science: Scientific Knowledge and the Federal Courts 1 (The M.I.T. Press, Cambridge, London).

[8]Jeroen De Ridder (2019) How Many Scientists Does It Take To Have Knowledge , in Kevin Mccain and Kostas Kampourakis (2020) What is Scientific Knowledge? A n Introduction to Contemporary Epistemology of Science 5, Routledge, New York.

science is our most reliable means for discovering non-obvious or non-superficial factual truths about the universe and about ourselves[9]. His observation is appreciable but the same may not be true when the same question comes before the Court of Law, especially a dispute of criminal nature. This may be our belief that science is accurate and perfect but a court needs the proof of this fact through trustworthy evidence in the cases where it is to be determined whether a scientific principle or method is reliable or not. Situation becomes worse if a judge has no or less knowledge about the science and scientific principles, although this can be cure by explaining to him (judge) the true import of scientific principle in question, and the burden of proving this shall lie on the party who asserts that principle. One of the eminent judges of Supreme Court of India, Justice Markandey Katju (2018) writes in his book that "Every institution is really the personnel manning to it, so, a High Court is not really a beautiful building or beautiful lawns but the judges who man the institution. Therefore, they should be the people of repute and integrity in conduct along with the legal knowledge they have inculcated[10]". It is submitted that a judge must not only be a man of higher moral integrity but also be a learned person in the field of science and technology so he may appreciate a scientific evidence in proper way. One may give argument that a judge may resort to his aid through an Expert, but, it is equally true that not all experts are unbiased as researches shown that they often lean towards the party who called them.

At the western world, it appears that the courts of America and Europe have been on the basis of their long experience and understanding are prepared enough to accept and admit the scientific evidence, if reliable in its true character, although, problems regarding their admissibility are same but judicial dynamism in understanding and acknowledging the scientific facts is the tool which can be immensely effective in the matters of application of science in the courtrooms, in relation to a dispute. While acknowledging the importance of science in the area of justice, Stephen Breyer (2011), said that "In this age of science, science should expect to find a warm welcome, perhaps a permanent home, in our courtrooms. The reason is simple one. The legal disputes before us increasingly involve the principles and tools of science. Proper resolution of those disputes matters not just to the litigants, but also to the general public-those who live in our technologically complex society and whom the law must serve. Our decisions should reflect a proper scientific and technical understanding so that the law can respond to the needs of the public"[11]. But the probability of manipulation of facts discovered at the crime scene coupled with suspicion on accuracy of scientific method applied in the investigation, are to be sorted out first, as required by the Courts.

However, that is equally true that all the judges obviously cannot be equally well-versed in all the spheres of social life, including the science and criminal investigation. In 2013, reflecting on the controversial decision in Bush v. Gore[12] in which the U.S. Supreme Court effectively awarded the presidency to Mr. George W. Bush, former Justice Sandra Day O'Connor said "Maybe the Court should have said. 'We are not going to take it,

[9]Ibid.

[10]Justice Markandey Katju, (2018), Whither Indian Judiciary 175, Bloomsbury India, New Delhi.

[11]Stephen Breyer, (2011) "Reference Manual on Scientific Evidence" 2 National Academic Press, Washington D.C.; Stephen Breyer has been the Associate Judge of the U.S. Supreme Court.

[12]531 U.S. 98 (2000).

goodbye'."[13] But one cannot deny the importance of science and Technology even in the field of complicated social disputes, as Anjum Parvez and Prof. Rajesh Bahuguna (2020) assert as science and technology conspicuously playing important role in every sphere of day-to-day life of the human beings[14].

All courts, as a matter of practical reason, require substantial and clear evidence which could assist them in arriving at the right conclusions about the facts in dispute put before them for determination, the role of expert witnesses besides lawyers become crucial in presenting and explaining the evidence in the backdrop of scientific knowledge. Judicial Tribunals all around the world usually exercise considerable caution regarding the admissibility of scientific evidence in the form of expert opinions concerning some new phase of ever increasing wealth of scientific knowledge[15], because the way in which scientific evidence produced before them generally lead the case in marsh of more complications without extricating any considerable fact out of complexities.

Frequently, the amateurish and unconvincing, and in some instances the deliberately dishonest presentation of scientific testimony is responsible for a court's refusal to admit it as evidence. Likewise, the super-cautiousness, or the innate inability of a judge of the court, either due to his personal lack of scientific knowledge or because of the command of the law[16], to appreciate the significance and importance of scientific evidence even when properly presented often accounts for the unduly deferred recognition as a scientific principle or its application[17].

Forensic Science in criminal investigation and trials is mainly concerned with materials and indirectly through materials with men, place and time. Among men, the investigating officer is the most important person. In fact, it is he whose work determines the success or failure of the application of forensic science in the process of criminal case. If he fails to collect the relevant correct evidence, or allows to be contaminated, mutilated, switched, destroyed or does not provide correct samples for comparison in then forensic science laboratories, the findings of the forensic scientist will not only be useless; but they will be misleading and even go to the extent of helping the culprits[18].

On the positive note, scientific methods and techniques, so far, proved very useful in identification and comparison of the materials involved or related or connected to an event, which may be in the form of criminal dispute before a court. They establish the

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[13]Nuno Garoupa and Tom Ginsburg (2015) Judicial Reputation: A Comparative Theory 14 University of Chicago, Chicago.

[14]Anjum Parvez and Rajesh Bahuguna (2020) "Use of Engineering and Scientific Methods in Detection and Prevention of Crimes" 12(3) Journal of Advance Research in Dynamical and Control System 374.

[15]Fred E. Inbau (1933) "Scientific Evidence In Criminal Cases" 24(4) Journal of Criminal Law and Criminology 825 (Winter, 1933).

[16]See, for Example, Section 83 of the Indian Penal Code, 1860, which provides that court shall presume conclusively about the innocence of child who committed any sort of crime if he is under seven years of age.

[17]Supra Note 15, at 826

[18]Dr. B.R. Sharma (2015) Forensic Science in Criminal Investigation & Trials 2 Universal Law Publishing Co. Pvt. Ltd., New Delhi, 5th Edition.

presence or absence of a link between the crime and the criminal, the victim, the weapon of offence etc[19].

In the Indian Judicial system, it appears that the it has an advantage over the U.S. Courts' approach because there are no parameters or standards so far laid down by the apex court, thus, it gives an additional extension of jurisdiction, so they may accept scientific evidence according to the merits of facts and circumstances of every case, but with an inevitable mist of confusion because here at the most courts can go on relying the principle of justice, equity and good conscience, not in disregard to the scientific principles and methods but in consonance with them, but one limitation of unavailability of settled parameter of knowing their validity. Nonetheless, this approach results in complete failure in those complicated cases where judge has to rely entirely on scientific facts and expert opinion.

Regarding the admissibility of scientific evidence in the court of the law, many institutional and systemic problems exist. Certification standards for crime data analysts and quality assurance programs for Forensic Science Laboratories[20] including the laboratories exclusively concerned with criminal data analyses are generally, *condicio sine qua non* in the Indian courts. Dr. Anjum Parvez and Prof. Rajesh Bahuguna (2021) are of the opinion that unlike biological or physical science there cannot exist common standards of admissibility of scientific evidence in different courts under different legal systems of different part of the world, nor, keeping in view of complex procedural aspect of admissibility of evidence, any possibility in near future of such standards[21].

Yet, undeniably the need for the application of science in the legal procedure and in dissemination of justice is pressing. Some of the factors demanding the extensive use of science not only in the investigation process but also in the court rooms are i.e. more involvement of science and technology in day to day life of an individual, unprecedented social change in the human relations like surrogacy, need of efficient and accurate evidence in order to condemn an accused against his shield of Human Rights, reconstruction of crime scene incidents etc. Besides this, electronic Evidence gaining huge confidence in the eyes of Indian Judiciary if it is un-tampered or possibility of making it tampered eliminated. Giving due importance to CCTV recording, the Apex Court of India has in *Shafi Mohammad v. State of Himachal Pradesh*[22] directed to the Ministry of Home Affairs, Government of India to establish a Central Oversight Body to implement a Plan of Action to use the Videography in the crime scene during he investigation.

The Court further pressed the need of creating an oversight mechanism in every State and Union Territory in India which can study the CCTV recording including contents of videos and audios and periodically publish the report of its observations, in order to

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[19]Ibid.

[20]Paul C. Giannelli (1997) "Criminal Discovery, Scientific Evidence, and D.N.A." 44 Vanderbilt Law Review 796.

[21]Dr. Anjum Parvez and Prof. (Dr.) Rajesh Bahuguna (2021) "Institutional Problems in Indian Judicial System Relating to Admissibility of Scientific Evidence: A Brief Overview" 14(1) International Journal of Grid and Distributed Computing 126.

[22](2018) 5 S.C.C. 311

verify the validity of CCTV Footages[23] .

It's all about getting the better Evidence: Forensics evaluate physical evidence which is objective. If a fingerprint found at the scene of crime, it can belong to only one person. If this person happens to be the suspect, he must account for his presence at the scene of crime[24].

4. Laws and Rules of Crime Investigation in India

In Indian Constitution, human rights of accused persons have been given due protection in some provisions, and no procedure including the scientific method or techniques or test, howsoever genuine and accurate, can go against that principle. As article 20(3) provides that no person can be compelled to be a witness against himself, hence, no scientific method for extraction of evidence which may go against the person obtained by way of compulsion or coercion[25]. But, if that is not the case, evidence obtained by use of scientific methods has always been of credit.

Fortunately, most of the Legislations relating to Criminal Procedure and adducing the Evidence before the Courts have become science friendly by recent amendments. For instance, Section 161(3) of Code of Criminal Procedure, 1973 now allows the videography of the interrogation by Investigating Officer of any accused, victim or any other witness. Very recently, the Supreme Court becomes that much alert in utilizing the science and technology in criminal investigation with the aim of elimination of elements of coercion and torture, that it directed the Central and State Governments to install CCTV Cameras in every Police Stations including every Cell under the regular and continuous observation of Oversight Committee[26]. Latest directions have been issued in *Paramvir Singh Saini v. Baljit Singh*[27] that CCTV Cameras in every police station must be equipped with night vision device.

The laws and rules for the administration of criminal justice system have been framed basically by the Indian Parliament, in India, except few minor laws which are enacted by the State legislatures. All laws need modification from time to time in the form of amendments, which are made by parliament whenever, it requires so to do. There are three main codes which deals with the criminal investigation and trials: one, (Code of Criminal Procedure, 1973, hereinafter referred as Cr.P.C.) specifies the Procedure of trial in the Court, the second, (Indian Evidence Act, 1872) specifies the varied nature, the mode of production of the evidence in civil and criminal cases and the value of evidence produced by the prosecution for or against an accused, the third (Indian Penal Code, 1860) defines the nature of different types of offences and the punishment for them[28] .

After the Criminal Amendment Act, 2005, now a medical practitioner can conduct

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[23]Ibid.

[24]Supra note 18, at 5.

[25]Constitution of India, 1949; Article 20(3).

[26]Supra note 20, at 44.

[27]AIR 2021 SC 64.

[28]Supra note 18, at 52.

medical examination of the arrested person at the request of Police Officer under Section 53 of Cr.P.C.[29] which includes examination of semen, blood and blood stains, saliva, and swabs in case of sexual offence. It also includes hair samples, sweat, finger nail clippings, including D.N.A. profiling of that arrested person[30]. Similarly, Medical Examination of accused of rape can also be done and evidence so collected may be produced before the court[31].

5. Suggestions

One may argue that judges should be concerned only with law as it is their natural and normal job. Obviously, it is true to large extent; however, we must concede that the laws do not apply in vacuum, but on persons living in society under certain social norms as recognized by the law, which indispensably import some elements of sociology to be kept in mind. Same is true about science and technology today as in our daily activities we have accustomed to electronic gadgets like Cell Phones, Computers, Electronic Watches, Closed Circuit TVs and many more. We mostly, including an ordinary person to the President of the country including Godmen, sages, saints, and judges too, have to resort to allopathic medical services which are considers most effective and feasible these days. Our house structures and bridges are based on principles of physics and gravity. As rapid means of transport, we prefer to use high speed trains, aero planes for commutation from one place to another in the world, working of which based on technology and engineering. One may conclude that science and technology have, consciously or unconsciously, become part and parcel of our life, which in turn, itself emphasized the need of having proper knowledge and understanding at least upto the primary level in every sphere of life, but more particularly in justice delivery system because it decisions affect the course of life of persons involved in litigations.

Forensic science, as mentioned before, is implicit in itself all branches of science, medical and engineering, and apply in the same in the investigation of crime, and, we cannot ignore its importance. Hence, undoubtedly it becomes need of the time for the application of forensic science in the criminal justice delivery system. The present scenario of crime investigation and prosecution of criminals, in India is rather dismal. A large percentage of the trials, even in those matters involving felony, ultimately, end in acquittals[32]. The official figure for acquittal is very high. Unofficial figures are a even higher, above ninety percent. It is estimated that in India, investigative agency spends millions of rupees (Indian currency) on each trial, but often case culminated in acquittal of accused. Thus, not only the money stands wasted in acquittal cases but worse still a dangerous criminal goes scot-free and let loose on the society. The worst consequence of these frequent acquittals is that the citizen loses respect for law. They also embolden the criminals and escalate crime and multiply criminals[33].

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[29] Code of Criminal Procedure, 1973; Section 53.

[30] Id; Section 53 , Explanation.

[31] Id; Section 53-A.

[32] Supra note, at 3-4

[33] Ibid.

Dehradun Law Review

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Pin-248007

LAW COLLEGE DEHRADUN
Arcadia Grant, Post Chandanwari, Prem Nagar,
Dehradun, Uttarakhand (India)
Phones : 0135-2771461, 2771405
e. : lcddlr@uttaranchaluniversity.ac.in
w. : www.uttaranchaluniversity.ac.in

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