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Contents

Editorial

In our increasingly interconnected world, the disturbances we face, whether political, environmental, or societal, are no longer confined to one corner of the globe. The challenges of today, from escalating conflicts in various regions to the impending threats of climate change, economic instability, and social inequality, are profound and urgent. We are confronted with issues that demand immediate attention, as the need for global peace and harmony has never been more pressing.

However, it is decisive to understand that true peace cannot be defined solely by the absence of war. Peace is a multifaceted state that encompasses security, justice, equality, and sustainability. It is a state that requires ongoing effort and thoughtful consideration of the deeper forces at play. Political instability, economic disparities, and environmental crises are interconnected problems that require collaborative solutions. If we fail to address these issues, the risk is clear: further division, heightened tensions, and a continued cycle of violence and suffering.

At the core of this global instability lies a need for awareness, a collective awareness that spans borders, cultures, and religions. We must recognize that our actions today have far-reaching consequences. What occurs in one part of the world can resound across the globe. Therefore, it is vital to remember that peace cannot be achieved without collective, conscious action. Our response to the world's challenges must go beyond mere recognition of the issues, we must actively engage in dismantling the systems that perpetuate division and conflict. Only then can we hope to cultivate the conditions for lasting peace.

Research plays a pivotal role in achieving these goals. Acknowledging the problems is not sufficient; we must actively seek solutions. This is where the power of research comes into play. Whether through scientific inquiry, social investigation, or policy-driven research, we need to foster innovation that addresses the root causes of global conflict and division.

Furthermore, research is essential in guiding policy decisions that promote stability, equality, and cooperation. It provides the insight necessary for crafting strategies to tackle the root causes of violence, poverty, inequality, and lack of education, thereby fostering a foundation for long-term peace.

The third edition of this journal seeks to highlight the critical importance of research in these tumultuous times. This edition features six research papers and one conceptual paper, each contributing valuable perspectives on the role of research in addressing the challenges of our modern world. I would like to extend my sincere appreciation to the contributors, whose dedication and hard work will undoubtedly influence future generations. Their efforts remind us that research is not just an academic pursuit but a vital tool for shaping a more peaceful, equitable, and sustainable future.

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XANTHAN GUM BASED POLYMERIC MATERIALS USED FOR ECO-FRIENDLY APPROACH: A MINI REVIEW

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Abstract

Xanthan gum is a derivative of bacterial polyose having natural origin. It owes a great market and has already established itself in various fields owing to its remarkable properties, like biodegradability, and non-toxicity in progressive drug delivery, protein delivery, wastewater treatment, tissue engineering, and food packaging. Still, there are some limits like lower surface area, thermal stability, poor mechanical presentation, and growth of bacteria can cause hinderance in its applications. This results in various efforts made by researchers to revamp xanthan gum via different methods for enhancement of its physicochemical properties, and consequently empowering it to compete for the requirements in drug delivery, oil recovery, tissue engineering, and environmental applications. This review commences to give a complete picture of fabulous applications from xanthan gum-based materials. Also, it displays the current applications of such materials in biomedical engineering, industrial, wastewater treatment, and agricultural fields. This work will create a wonderful base for researchers who are planning to scheme new materials for application with more advancement in their use.

Keywords: Xanthan gum, Structure, Properties, Production, Application, Hydrogels, Eco-friendly applications.

1. Introduction

Gum terminology is common for polysaccharides-based gels which are hydrophilic in nature. Conventionally, they are plant-derived materials. Chemically, they are polymeric materials of carbohydrate. Polysaccharides are omnipresent owning various exceptional chemical and physical properties(Kennedy, J.F., Bradshaw). They are energy reservoirs and also form the structural framework in plants. Microbial polysaccharides have consistent repetition of simple

sugars such as glucose, mannose, fructose, etc. Chiefly, such natural materials are endlessly being used in drug delivery, medicinal works, tissue engineering, wound remedial, dietary usages owing to its extraordinary features like, structural diversity, copiousness, rheological and biodegradable characteristics(Palaniraj and Jayaraman).

One substitute to synthetic materials are natural polyoses. They can be easily obtained from plant sources like, guar gum, gum ghatti, locust bean gum, pectin, xanthan gum and gellan gum, etc. or via marine world like chitosan, alginate, carrageenan and gelatine. Plant-based polyoses frequently fight for fluctuation in their accessibility, rate of annual manufacture, and disparities in their chemical features. Often, cheap production is more dependent on seasonal changes and takes place under unrestrained ecological circumstances(Margaritis and Zajic). Contrary to this, polyoses resulting from bacterial fermentation are manufactured biologically under controlled circumstances, needing restricted space as well as production time which shows steady chemical behaviour with narrower stipulations, higher purity along with broader obtainability(R. Kumar et al.). Being a non-toxic material, Xanthan Gum was accepted as a benign food preservative, and also listed as a stabilizer and emulsifier[1].

2. Structure

XG came into light in 1950 by Allene Jeanes, et.al. while working with *Xanthomonas campestris* bacteria choosing formation of an extracellular polyose of higher molecular weight but was later isolated in 1959 from diverse species of Xanthomonas[2]. However, X. campestris contributes mainly in the manufacture of xanthan gum, still they can also be attained from further species, like X. citric, X. hordeum, etc. They are already known to have unmatched pseudoplastic rheological assets(Jansson et al.).

As a polysaccharide, principal structure contains backbone of β-1,4-linked glucose units attached with a trisaccharide side chain containing D-glucose, D-mannose, and D-glucuronic acid in the ratio of 2:2:1(Figure 1)(Katzbauer; Kashaudhan, Pande, Sharma, Nath, et al.; Kashaudhan, Pande, Sharma, Shankar, Nath, et al.). Glucuronic and pyruvic acid also marks its occurrence displaying a polyose with stiff polymeric backbone having higher molecular weight and narrower spread(Abu Elella, Goda, Gab-Allah, et al.). Owing to its natural occurrence, degradation into lower saccharides along with water and carbon dioxide takes place easily(García-Ochoa et al.). Depolymerization of this material can be attained by enzymatic action, mainly xanthanase, xanthan lyase, etc. secreted via others(Kashaudhan, Pande, Sharma, Shankar, and Nath). However, these practices can be satisfactory to lessen viscosity and their functionality. Some researchers have saw that resistance to microbial deprivation can take up to several month which is helpful when longstanding outcome is wanted[3].

1   Alicja Mortensen et. al.(2017), Re-evaluation of xanthan gum (E 415) as a food additive, EFSA Journal, Vol. 15, Iss. 7

2   S. Mehnath. Et. al.(2021), Chapter Nine - Biosynthesized/green-synthesized nanomaterials as potential vehicles for delivery of antibiotics/drugs, published in Biosynthesized Nanomaterials, Vol. 94, p.363-432

3   Jian Yao Ng. et. al.(2020), Biomimicry of microbial polysaccharide hydrogels for tissue engineering and regenerative medicine – A review, published in Carbohydrate Polymers, Vol. 241, p.116345
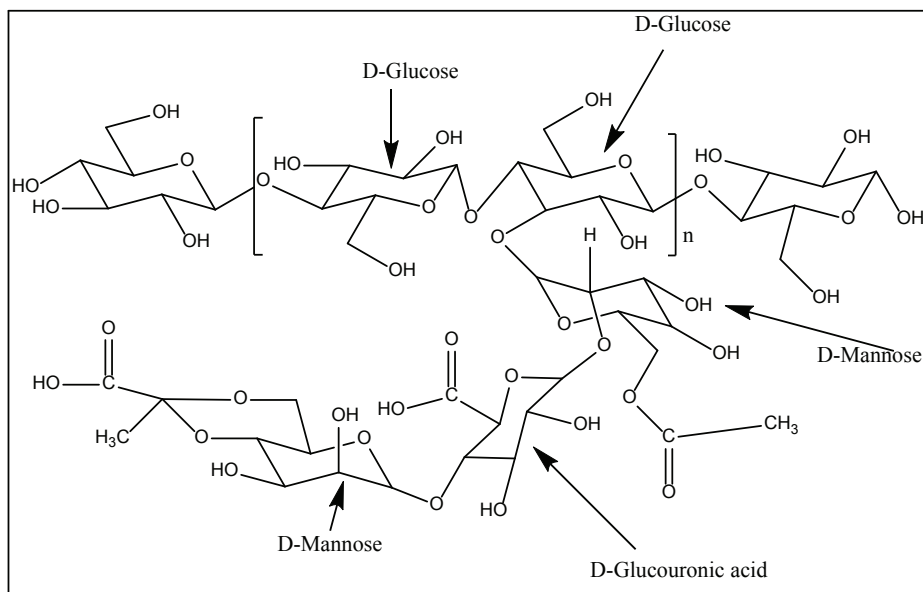
Figure 1. Chemical structure of xanthan gum

3. Properties

On dissolving in cold water, it generates extremely viscous solutions. XG has already established itself as a thickener, in food applications like sauces, salad dressings, desserts, immediate foodstuffs, dairy products, bakery, and fruit juices, etc(A. Kumar et al.; Petri; Katzbauer). It is also used in pharmaceutical field for modification of drug like tablets, hydrogels, films, and nano chemical world along with tissue engineering(Katzbauer). In cosmetics, it assists like a stabilizer and thickener, e.g. creams, toothpastes, gels, lotions, and shampoos. XG has industrial applications, like paints, cleaners, inks, ceramic glazes, oil drilling fluids[4].

There are different commercial grades of xanthan gum available commercially which differ in their properties. Classification can be done on the basis of their particle size, purity, and rheological presentation. The purity is unaffected by flow and stabilization nature whereas particle size strongly effects the hydration and dispersion properties(Ahmad et al.). Fast hydration is brought about by fine granular particles while the coarser granulations hydrate slowly. Diverse rheological properties need to be kept in mind while studying applications comprising higher salt amounts, or highly acidic conditions, etc. Now, the commercial market offers dissimilar possibilities like, salt-tolerant xanthan gum(Berninger et al.).

In addition to the rheological properties, the transparency of its solution can also be attuned by changing grades. Transparency can be attained by an extra treatment to eradicate all the cell residues. Availability of various types of this gum provides researchers a great occasion to select material according to their necessities(Berninger et al.).

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4   Sanderson, George R.(1981) Applications of Xanthan gum, British Polymer Journal, Vol.13, Iss.2, p.71-75

4. Production

Xanthan Gum is formed from diverse species of *Xanthomonas* like *X. pelargonii*, *X. campestris*, etc. via aerobic fermentation(Chang et al.). Industrial preparation of XG is shown in Figure 2(Li et al.). Firstly, certain amount of the conserved culture is refreshed via inoculum preparation which is charged into bioreactors. The entire production work initiates with the fermentation step, where simple molecules are processed by *X. campestris* to manufacture this gum. Numerous factors affecting the production and growth of microorganism include bioreactor type, mode of its operation, constituents of medium, pH, temperature, and concentration of oxygen. Following fermentation step, the broth contains the gum, bacteria, along with other chemicals. For recovering the gum, the bacterial cells need to be removed via centrifugation methods. After this, purification step is carried out with precipitation by adjusting pH of solvents. Post precipitation, the product undergoes dewatering and is dried followed by milling and packing them into air-tight containers(Habibi and Khosravi-Darani; Kashaudhan, Pande, Sharma, Nath, et al.; García-Ochoa et al.; Li et al.)[5].

For adjusting yield parameters like content of nutrients, temperature, and kinetics of production can be considered. Numerous micronutrients and macronutrients are required to produce xanthan gum. Post fermentation pasteurization is done for deactivating these microbes. The second step includes precipitation and drying followed by milling. The gum is recovered by precipitation of solvent and pH adjustment. These steps can differ dependent on desired quality and purity of required Xanthan gum, which governs end usage, e.g., in technical, oil, food, personal care as well as in pharmaceutical fields.

5. Applications of Xanthan gum-based materials

Though very few polysaccharides have been commercially taken in use, regardless of this xanthan gum is well-established product by now in the market. However, other polysaccharides like alginate(Rehm and Valla), cellulose, starch, Arabic gum, guar gum, alginate, gellan and acetan, from plant origin and bacterial origin respectively, provide a tough competition to xanthan. Xanthan has been approved by the U.S. Food and Drug Administration for use as a food in 1969(Katzbauer; Kennedy, J.F., Bradshaw). The success of xanthan gum as a food additive is grounded on its significant rheological properties like higher viscosity at relatively lower concentrations, its pseudoplastic nature, insensitive nature to a wide-ranging pH, temperature, and electrolyte concentrations along with a high shear stability. Owing to such properties xanthan has initiated wider applications in oil, paint, pharmaceutical, paper, cosmetics, and textile industries[6]. Its main use is to act as a gelling agent, suspending agent, flocculant or for viscosity control. Xanthan is also used in the food industry like a stabilizer, thickening, gelling and emulsifying agent(SANDFORD and BAIRD). Some of them have been given in Table 1(Palaniraj and Jayaraman; Sanderson).

5   Urlacher, B., Dalbe, B. (1992). Xanthan gum. In: Imeson, A. (eds) Thickening and Gelling Agents for Food. Springer, Boston, MA.

6   Furtado, Ingrid F. S. P. C. et.al.(2022), Xanthan gum: applications, challenges, and advantages of this asset of biotechnological origin, Biotechnology Research and Innovation, Vol.6, Iss.1
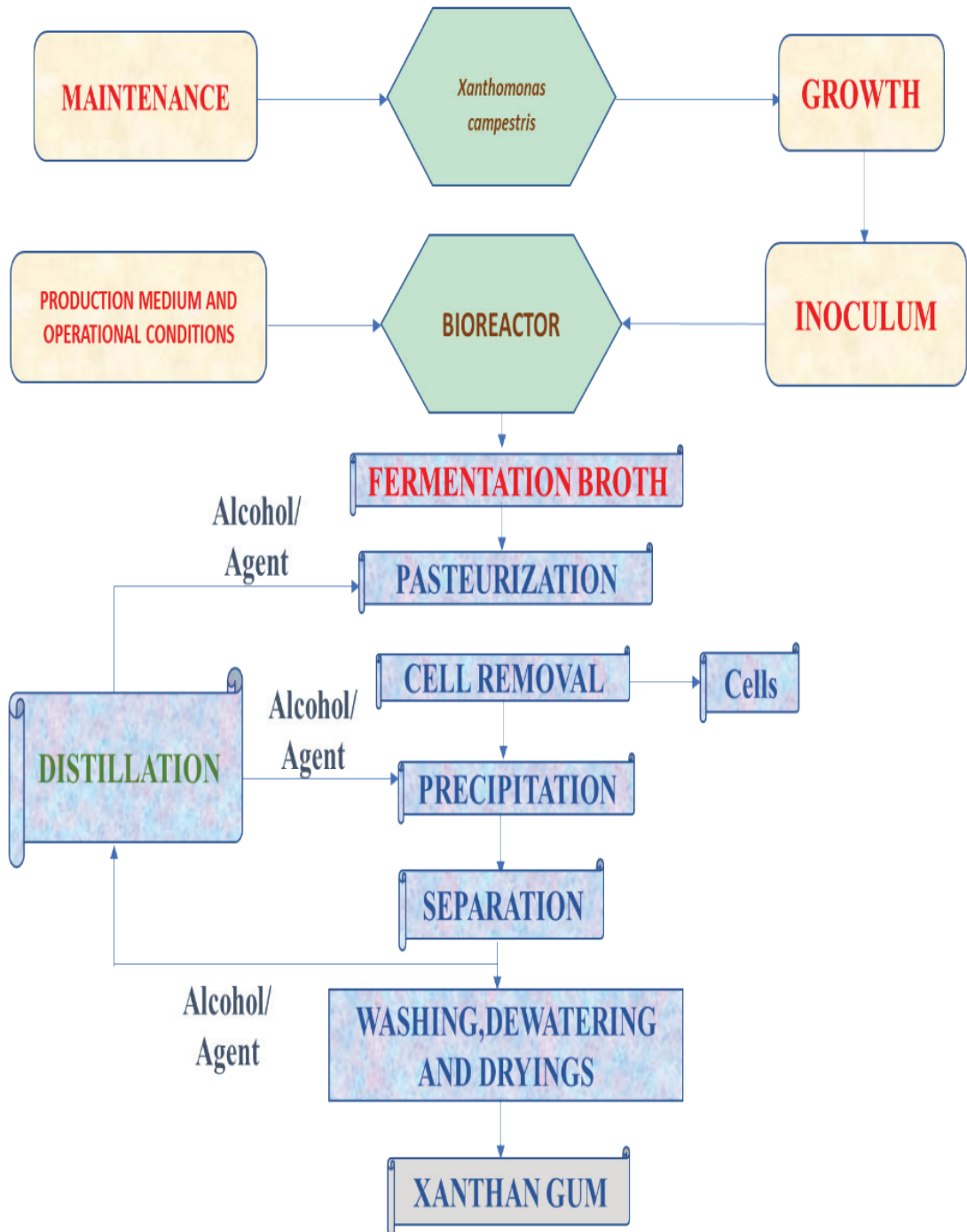
Figure 2. Industrial production of Xanthan Gum

Table 1. Applications of Xanthan Gum

Applications	Areas	Usages
Food[7]	Bakery	Biscuits, Muffins, Cakes, Bread mixing batter
	Beverages	Beverages, Squashes
	Pet food	Liquid milk replacers
	Dairy	Milk, Dessert puddings
	Dressings	Stabilizer
	Syrups	Chocolate toppings and buttered syrups
Others	Agriculture	Fungicides, herbicides, and insecticides
	Personal care	Creams, gels, Shampoos, Liquid soaps, Toothpastes
	Pharmaceutical	X-ray diagnosis, cough remedy
	Oil	Oil drilling, rupturing, cleansing of pipelines
	Cleaners	Drains, tiles, grout cleaners, rust removal, removal of metal oxide and graffiti, toilet bowl and oven cleaners
	Coatings	Paints and ceiling-tile coatings
	Paper manufacture	Paper and paperboard production

Along with the above applications, Xanthan Gum derived materials can also be used as an adsorbent in Wastewater Treatment[8] as given in Table 2.

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7   Andrew, T.(1977), Applications of Xanthan Gum in Foods and Related Products, Extracellular Microbial Polysaccharides, Vol.45, p.231-241

8   Prtri, D. (2015) Xanthan gum: A versatile biopolymer for biomedical and technological applications, Journal of Applied Polymer Science, Vol.132, Iss.23

Table 2. Some applications of Xanthan Gum based adsorbents previously used in Wastewater treatmen

Adsorbents	Isotherm	Kinetics	Thermodynamics	Applications	Ref
XG-g-PVI	Langmuir	Pseudo second order	Spontaneous & endothermic	Dye removal	(Abu Elella, Goda, Abdallah, et al.)
XG-g-PAM/SiO$_2$	Langmuir	Pseudo second order	Spontaneous & endothermic	Pb^{2+} ion removal	(Ghorai, Sinhamahpatra, et al.)
Partially hydrolysed XG-g-PAM/SiO$_2$	Langmuir	Pseudo second order	-	Pb^{2+} ion removal	(Ghorai, Sarkar, and Pal)
XGP@ZnO	Langmuir	Pseudo second order	Spontaneous & endothermic	Cr^{6+} ion removal	(Ahmad and Hasan)
(XG-g-P(AMPS)/MMT)	Langmuir	Pseudo second order	Spontaneous& Endothermic	Cu^{2+} ion removal	(Aflaki Jalali et al.)
XG-g-Poly(AA-co-AAM)/Fe$_3$O$_4$	Langmuir	Pseudo second order	Spontaneous& Endothermic	Malachite green dye removal	(Mittal, Parashar, et al.)
XG-PAM/SiO$_2$ composite	Langmuir	Pseudo second order	Spontaneous& Endothermic	Congo red dye removal	(Ghorai, Sarkar, Panda, et al.)
XG-PAA/Fe$_3$O$_4$	Langmuir	Pseudo second order	Spontaneous& Endothermic	Methyl violet(MV) dye removal	(Mittal, Kumar, et al.)
XG-cl-PAA	Langmuir	Pseudo first order	-	Methylene blue (MB) dye removal	(Makhado et al.)

Some xanthan gum-based adsorbents used in wastewater treatment have been presented here along with the conditions in which they have been used and the results obtained after treatment[9] in Table 3.

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9   Mittal, H. et. al.(2016) Recent Progress on the Design and Applications of Polysaccharide Based Graft Copolymer Hydrogels as Adsorbents for Wastewater Purification, Macromolecular Materials and Engineering, Vol.301, Iss.5, p.496-522

Table 3. Applications of Xanthan Gum based Adsorbents and their Treatment results

Adsorbent	Wastewater	Initial condition	Treatment result	Ref
Zeolite NaA/ XG-alginate	Co^{2+} and Ni^{2+} ion removal	pH: 6, T: 323 K	AC:43.9 and 81.3 mg/g, %R:99.5% and 99.8%	(W. Zhang et al.)
Magnetic $Fe_3O_4@$ XG/SiO_2	Pb^{2+} ion removal	pH: 6, T: 293 K	AC:21.32 mg/g, %R:100%	(Peng et al.)
XG/Methionine-bentonite	Congo red dye removal	pH: 3, D: 60 min T: 323 K	AC:530.540 mg/g, %R:95%	(Ahmad and Mirza)
XG Capsuling α-Fe_2O_3 (XGFO) BNC	Pb^{2+} ion removal	T:303K	AC:117.45 mg/g, %R:99.23%	(Alharthi et al.)[Pb (II]
XG@FAMB	Pb^{2+} and Cu^{2+} ion removal	pH 6, D:120 min	AC:14.93 mg/g and 14.88 mg/g, %R:>93%	(G. Zhang et al.)
Poly (XG-g-AAM-g-AA)	Cu^{2+} ion removal	pH: 5, D: 180 min, RT, C: 0.5 g/L	AC:130.31 ± 2.97 mg/g, %R:95%	(Zheng et al.)
XG-cl-GG	Pb^{2+} ion removal	pH: 5, D: 24 h	AC:98.4 mg/g, %R:91%	(Pal et al.)
Ca^{2+} ion -alginate -XG	Pb^{2+} ion removal	T:293K, C:2mg/L	%R:98%	(S. Zhang et al.)
XNIPA	Bisphenol adsorption	T:30 °C	AC:458 mg/g, %R:100%	(Chen et al.)

*%R: % Removal of Adsorbate AC: Adsorption Capacity

6. Conclusions

Xanthan is the utmost commercially used gum which owns a market of $408 million, mainly of food and industry related products. Many researchers have explained the various factors like low material cost and easy recovery methods involved in their production and capital investment. Still, there are issues like production of low cost and efficient material. The processes involved in the production of xanthan gum from low-priced raw materials should be enhanced to make them better. This could increase their applications in various fields of application and a better alternative for use in wastewater treatment, drug delivery, genetic engineering and cosmetic industry can also be produced[10].

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10   Kaur, A., Singh, D. & Sud, D (2020) A review on grafted, crosslinked and composites of biopolymer Xanthan gum for phasing out synthetic dyes and toxic metal ions from aqueous solutions. J Polym Res, Vol.**27, Iss.297**

7. Acknowledgements

8. Declarations

The authors give a declaration to have no conflicts of interest.

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DOCTRINE OF FRUIT OF THE POISONOUS TREE: A COMPARATIVE STUDY WITH US LEGAL SYSTEM

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Abstract

During the course of an enquiry the investigation agency would normally go to great lengths to collect all possible evidence in order to establish the truth concerning the case at hand. Sometimes, in order to collect evidence the police and other investigators would have to attempt various means to collect evidentiary material. However, not all means to collect evidence can be justified in a court of law. For instance, if a police officer illegally breaks into a property belonging to the suspect and stumbles upon a crucial piece of evidence, it would mean not just that the officer has committed the crime of housebreaking or trespass but it would also imply that the evidence he had discovered during such trespass will be deemed inadmissible in the court of law, going by the doctrine of 'fruits of a poisonous tree'. This paper looks at the application of this doctrine of evidence in different parts of the world.

Key Words:- Doctrine of Poisonous Tree, Means of collection of Evidence, Search & Seizure, Unauthorized arrest, confession obtained by illegal means, Due process clause, Dissipate the taint, Fruit of involuntary confession, Attenuation.

Position in USA

In the United States, before 1914, warrantless and illegal searches were common and evidence procured from these searches was admissible in court. However, in 1914, the United States Supreme Court had to deal with the question of a warrantless search of a house wherein the evidence collected was used to convict the owner of the house for illegal gambling. This was the case of ***Fremont Weeks v. United States[1]***, where the Court overturned Week's conviction based on the Fourth Amendment of the Constitution of the US, which bars the use of evidence secured through a warrantless search and seizure. Thus, was born the exclusionary rule, which is a judicially created remedy used to check police misconduct in obtaining evidence. As per the exclusionary rule, a Judge may exclude incriminating evidence from a criminal trial if there was police misconduct in obtaining the evidence. The exclusionary rule was the predecessor of the doctrine of "fruits of the poisonous tree".

The doctrine of the "fruits of the poisonous tree" holds that the evidence (fruit) from an illegal search or seizure which is a tainted source (the tree), would also be tainted and hence, holding that evidence seized during a search illegal under the Fourth Amendment may not be

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1   232 U.S. 383 (1914) – holding that evidence seized during a search illegal under the Fourth Amendment may not be used against the victim of the search where a timely challenge to its use has been interposed in a motion to suppress.

used against the victim of the search where a timely challenge to its use has been interposed in a motion to suppress inadmissible.

The term's first use was by Justice Felix Frankfurter in **Nardone v. United State[2]**, wherein it was held that, in a prosecution in a federal court, evidence procured by tapping wires in violation of the Communications Act of 1934 is inadmissible. The "fruit of the poisonous tree" doctrine is an extension of the exclusionary rule, which, subject to some exceptions, prevents evidence obtained in violation of the Fourth Amendment from being admitted in a criminal trial. Like the exclusionary rule, the fruit of the poisonous tree doctrine is intended to deter police from using illegal means to obtain evidence. This was applied not only to intercepted conversations but also to evidence procured through the use of knowledge gained from such conversations.

The doctrine underlying the name was first described in **Silverthorne Lumber Co. v. United States[3]**. Such evidence is not generally admissible in court. The testimony of a witness who is discovered through illegal means would not necessarily be excluded, however, due to the "attenuation doctrine", which allows certain evidence or testimony to be admitted in court if the link between the illegal police conduct and the resulting evidence or testimony is minimal. For example, a witness who freely and voluntarily testifies is enough of an independent intervening factor to sufficiently minimalize the connection between the government's illegal discovery of the witness and the witness's voluntary testimony itself[4].

Searches & Seizures[5]

The fruit of the poisonous tree doctrine, as applied in cases involving searches and seizures, excludes evidence obtained from or as a consequence of conduct of officers violative of the Fourth Amendment[6] of the United States Constitution. The fourth amendment originally enforced the notion that "*each man's home is his castle*", secure from unreasonable searches and seizures of property by the government. It protects against arbitrary arrests, and is the basis of the law regarding search warrants, stop-and-frisk, safety inspections, wiretaps, and other forms of surveillance, as well as being central to many other criminal law and privacy law aspects.

As stated in the foregoing paragraphs the exclusionary rule enforced by the doctrine had its origin in **Fremont Weeks v. United States (supra)** holding that evidence seized during a search illegal under the Fourth Amendment may not be used against the victim of the search where a timely challenge to its use has been interposed in a motion to suppress. This rule was

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2   302 U.S. 379 (1939) 3 251 U.S. 385 (1920)

3   4 United States v. Ceccolini, 435 U. S. 268 (1978)

4   5. Luther E. Jones Jr., Fruit of the Poisonous Tree, 9 S. TEX. L.J. 17 (1966).

5   Ibid

6   Fourth Amendment of U S Constitution. "The right of the people to secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched and the persons or things to be seized".

then made obligatory in ***Silverthorne Lumber Co. v. United States (supra)*** and thereafter in ***Mapp v. Ohio***[7]it was made obligatory on the States. In ***Mapp v. Ohio***, the US Supreme Court held that under the "***due process***" clause, evidence obtained by a search and seizure in violation of the Fourth Amendment is inadmissible in a State prosecution for a State crime. Though this initially applied to criminal cases only, in recent times, the US courts have also applied this to civil cases. This was done by the US Supreme Court as part of its decision in that case holding that the provisions of the Fourth Amendment now apply to the States by reason of the Due Process Clause of the Fourteenth Amendment[8].

The applicability of this exclusionary rule in a particular case as basis for excluding evidence poses two basic questions.

·   Did the officers engage in conduct violative of the Fourth Amendment?
·   If so, was the evidence acquired by reason of an exploitation of that conduct and hence inadmissible as fruit of a poisonous tree?

The case of ***Wong Sun v. United States***[9] illustrates how questions of this kind are dealt with in practice. The Court held therein ***"… verbal evidence which derives so immediately from an unlawful entry and an unauthorized arrest as the officers' action in the present case is no less the 'fruit' of official illegality than the more common tangible fruits of the unwarranted intrusion".*** In that case, federal officers broke into defendant Toy's bedroom without a warrant and arrested him without having probable cause for so doing. The Supreme Court held that this conduct was violative of his right of privacy guaranteed by the Fourth Amendment. While this conduct was occurring he made incriminating admissions to the officers. The Supreme Court held that these admissions were the fruit of official illegality and overruled the trial court's ruling that had admitted them into evidence. Part of the proof against defendant Toy was testimony of officers as to narcotics discovered by them in possession of one Yee. The information which led the officers to make this discovery came from the incriminating admissions defendant Toy made to the officers when they were in his bedroom. Indeed, the prosecutor admitted that the narcotics would not have been found except "that Mr. Toy helped us to." The Supreme Court concluded that in these circumstances there was no basis for a view that the Government had learned of the narcotics from an "independent source". On the basis of that conclusion the Supreme Court held that testimony as to discovery of the narcotics was inadmissible against defendant Toy because it resulted from an "exploitation" by the Government of the conduct of its officers in subjecting defendant Toy to an illegal arrest in violation of the Fourth Amendment. It was held clearly, "***We need not hold that all evidenceis 'fruit of the poisonous tree' simply because it would not have come to light but for the illegal actions of the police. Rather, the more apt question***

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7   367 U.S. 643 (1961)

8   Fourth Amendment of US Constitution:- "No State shall make or enforce any law which shall abridge the privilege or immunities of citizens of the United States, no shall any State deprive any person of life, liberty or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws".

9   371 U.S. 471 (1963) @ 485,

in such a case is 'whether, granting establishment of the primary illegality, the evidence to which instant objection is made has been come at by exploitation of that illegality or instead by means sufficiently distinguishable to be purged of the primary taint'. We think it clear that the narcotics were 'come at by exploitation of that illegality' and hence that they may not be used against Toy."

The officers who arrested Toy in violation of his Fourth Amendment rights also illegally arrested defendant Wong Sun in violation of his Fourth Amendment rights. The latter was released on bail but returned in a few days and made a confession. However, the Supreme Court concluded in the case of Wong Sun that this confession was not the fruit of the illegal arrest of Wong Sun, holding that the connection between the arrest and the statement had '*become so attenuated as to dissipate the taint'.*

Aside from Wong Sun, there are many other federal cases that may be studied for determining the extent to which the fruit of the poisonous tree doctrine may be used for excluding material damaging evidence sought to be introduced against the defendant. Some of the types of testimony held by those cases to be subject to exclusion because of fruit of a poisonous tree include the following:

a) Testimony of officers as to objects observed during an illegal search - *Mc Ginnis v. United States*[10],– "We find no basis in the cases or in logic for distinguishing between the introduction into evidence of physical objects illegally taken and the introduction of testimony concerning objects illegally observed". *Williams v. United States*[11], held that observations made by police during illegal search may not be testified to at trial.

b) Testimony of officers as to evidence seized under a warrant issued on the basis of observations made during a previous illegal entry - *Hair v. United States*[12], – Officer in course of illegal entry into defendant's home observed evidence which fit description of goods stolen in robbery and these items were thereafter seized under search warrant. Held that evidence seized under warrant issued on basis of observations made during an illegal entry should have been suppressed.

c) Testimony of a witness discovered as result of an illegal search - *Mc.Lindon v. United States*[13], held that witness discovered as result of illegal search may be barred from testifying against the defendant. In *Accord, People v. Albea*[14], the testimony of a witness

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10   227 F.2d 598, 603 (5th Cir. 1955)

11   263 F.2d 487, 489 (D.C. Cir. 1959) 12 227 F.2d 894 (D.C. Cir. 1961)

12   Ibid

13   320 F.2d 238 (D.C. Cir. 1964)

14   1 Ill.2d 317, 118 N.E.2d 277 (1954)

discovered by police on defendant's premises during illegal search of such premises was barred.

d) Testimony as to fingerprints made by defendant immediately after he was arrested without probable cause in violation of the Fourth Amendment – In **Bynum v. United States[15]**, the Court held, "*Here it becomes important to determine the rationale of those decisions of the Supreme Court which, in other circumstances, have excluded evidence as the product of unlawful arrest and detention. It is well settled that an article taken from the person of an individual on the occasion of an illegal arrest is not admissible in evidence against him although it is relevant and entirely trustworthy as an item of proof…. Again, if the police have obtained a statement from an accused person during his illegal detention, no showing that the statement has been obtained without coercion and accurately recorded can make it admissible, although it may seem to be a trustworthy and patently relevant voluntary statement. The Fourth Amendment makes protection of the individual against illegal seizure or arrest a constitutional imperative. Judicial authority over the manner in which justice shall be administered is exercised in a way calculated to implement the constitutional guarantee. True, fingerprints can be distinguished from statements given during detention. They can also be distinguished from articles taken from a prisoner's possession. Both similarities and differences of each type of evidence to and from the others are apparent. But all three have the decisive common characteristic of being something of evidentiary value which the public authorities have caused an arrested person to yield to them during illegal detention. If one such product of illegal detention is proscribed, by the same token all should be proscribed. ….. Therefore, we conclude that the court below erred in admitting the fingerprints in evidence.*"

e) **Testimony as to confession made by defendant during period when his detention was without probable cause and hence in violation of the Fourth Amendment.** – The Court in **United States v. Meachum[16]** observed, "The import of the Fourth Amendment is that an individual may not be arrested and retained in custody without probable cause.

And where the Fourth Amendment is violated, any evidence procured through such violation is to be suppressed . . . Defendant's Fourth Amendment rights were violated because he confessed at a time when no probable cause existed to justify his continued arrest status.

There having been no legal basis for defendant's continued arrest and detention after his first line up, he should have been released. Since he was not, effectuation of the constitutional guarantee requires that his subsequent confession be suppressed."

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15   320 F.2d 465 (D.C. Cir. 1959)

16   16197 F.Supp. 803 (D.D.C. 1961)

Wiretapping Cases

The Federal Communications Act of 1934 contained provisions which made it a federal crime for any person not authorized by the sender to "intercept any communication and divulge such intercepted communication to any person." The US Supreme Court has barred use by the Government of information obtained indirectly from leads furnished in conversations on telephones tapped by federal agents. As basis for that holding the Supreme Court applied the fruit of the poisonous tree doctrine that had been originated in search and seizure cases. It described the procedure to be followed in deciding the issue whether evidence should be excluded based on the doctrine of fruit of a poisonous tree, saying: "The burden is, of course, on the accused in the first instance to prove to the trial court's satisfaction that wiretapping was unlawfully employed. Once that is established the trial judge must give opportunity to the accused to prove that a substantial portion of the case against him was a fruit of the poisonous tree. This leaves ample opportunity to the Government to convince the trial court that its proof had an independent origin."'

Thus, the burden is put on the defendant of proving not only occurrence of the claimed official illegality but also that a substantial part of the case against him was fruit of that illegality. Other courts, however, have taken a different view of defendant's burden. Their position is that once he sustains the burden of showing that illegal wiretapping has indeed occurred it then becomes the burden of the Government to establish how far its proof had an independent origin. Whenever there is indication that wiretapping has occurred a full investigation should be made to determine whether, either before or during trial, there was any illegal interception by officers of private conversations between defendant and his counsel. An interception of that kind inevitably operates to frustrate the defendant's Sixth Amendment right[17] to assistance of counsel and, without more, requires a new trial.

Fruit of Involuntary Confession

As per the Texas Code of Criminal Procedure, there is a provision that the issue of voluntariness of a confession shall be submitted to the jury under instructions showing them that if they find the confession involuntary they may not consider it for any purpose nor any evidence obtained as "a result thereof."[18]   That provision bars the State from using as proof against defendant any stolen property, weapon, or other evidence obtained as a result of information gained from a defendant's involuntary confession. A similar doctrine was earlier established by the Court of Criminal Appeals in consecutive-confession cases. Those cases establish that any undue influence which induces a first confession, rendering it inadmissible, is presumed

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17   17 Sixth Amendment of the US Constitution. *"in all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence."*

18   Art. 38.22, Sec. 3(b), TEX. Code of Criminal Procedure (1965)

to continue until affirmatively shown to have been removed, and that unless the State sustains the burden of rebuttal no subsequent confession is admissible.

Methods of Challenging Admissibility of Poisoned Fruit.

The conventional method of challenging admissibility of evidence constituting fruit of a poisonous tree is by a pre-trial motion to suppress. In the federal system an omission to use this

method timely may operate to waive defendant's objections. Whether a similar rule is applicable in the State courts is yet to be decided. Where feasible, careful defense counsel will, by interrogation of officers at the examining trial or at the taking of depositions, undertake to elicit admissions showing precisely the extent to which illegality may have infected various items of evidence acquired for use against the defendant, all to the end that basis will exist for the preparation and urging of a pre-trial motion to suppress complaining of any items that may constitute fruit of a poisonous tree. When an officer commences to testify as to evidence obtained by him and there is any possibility he may have acquired it as a result of a violation of some constitutional or statutory provision the defense counsel should request that he be allowed, by means of a voir dire examination, out of the presence of the jury, to explore fully the extent to which the evidence may be the product of official illegality. It was held in *United States v. Giglio[19]*

"*Upon the trial itself if evidence derived from tainted sources had been offered, counsel by voir-dire examination could have learned from the witness, revenue agent or otherwise, from what source he had become aware of the facts about which he proposed to testify. . . . If a revenue agent testifies that the subject matter of his testimony came only from a record obtained in violation of a defendant's constitutional rights it can be suppressed or stricken by the trial judge. If on the other hand he testifies that the facts were developed from records lawfully obtained a jury question may result if there be conflicting testimony.*"

If the court refuses to allow voir-dire examination, then the defendant has the right to cross examine witness to see if the source of evidence is tainted.[20] Where evidence obtained by an officer is infected by conduct violative of the Fourth Amendment or any other provision of the United States Constitution, it would seem clear, on principle, that at the time the evidence is offered during trial by the prosecution the defendant should be entitled to have the trial judge conduct, out of the presence of the jury, a preliminary hearing of the type required by *Jackson*

v. Denno[21], whenever the issue of voluntariness of a confession is raised.

Exceptions to the Doctrine

The doctrine of "fruit of the poisonous tree" is subject to four main exceptions. This would

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19   263F 2d 410, 412 (2nd Cir.1959)

20   Lawn v. United States, 355 U.S. 339(1938)

21   378 U.S. 368 (1963).

mean that even the tainted evidence would be admissible in the event of:

1. ***Impeaching credibility:*** Use of illegally obtained evidence not for the purpose of proving guilt but to impeach the credibility of the accused should he/she choose to depose;

2. ***Independent source:*** Evidence procured by illegal means by an independent source or third person which in part at least is not obtained from a tainted source. An independent source must be someone absolutely unconnected to the illegality of the arrest, search, and/or seizure (People ***v. Arnau***[22]), thus, when the evidence was discovered in part as a result of an independent, untainted source; or

3. ***Inevitable discovery***: it would inevitably have been discovered despite the tainted source;

    or

4. ***Attenuation***: If the link between an illegal search and legally admissible evidence is thin, the evidence is admissible, even if the illegal search may have set in motion the chain of events that led to evidence being revealed. In other words, unless it can be proven that the evidence resulted directly from some illegal action taken by law enforcement officials, it can be admitted. In ***People v. Martinez***[23], a three-part test was established for this exception:

    "(1) the time period between the illegal arrest and the ensuing confession or consensual search;
    (2) the presence of intervening factors or event; and
    (3) the purpose and flagrancy of the official misconduct"

In other words, when the chain of causation between the illegal action and the tainted evidence is too minimal, the evidence may be admitted; or

5. ***Good faith***: An officer acting under the impression of being permitted by law, for instance, conducts a search believing a warrant to be authorised but later revoked, is believed to have acted in good faith and any discovery is held admissible in law. This exception was created by the Supreme Court in United States v. Leon[24], because, according to the majority opinion, the rule was designed to deter police misconduct, and excluding evidence when the police did not actually misbehave would not deter police misconduct and only lead to vital evidence being eschewed without any redeeming value. In other words, when the search warrant was not found to be valid based on probable cause, but was executed by government agents in good faith, this would be called the good-faith exception).

Independent evidence

An exception to the poisonous tree doctrine applies when facts the poisoned fruit would tend to

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22   58 N.Y.2d 27

23   80 NY2d 444 (1992)

24   468 U.S. 897 (1984)

prove are sought to be proved by other evidence of independent origin not infected by official illegality. **Silverthorne Lumber Company v. United States[25]**, held that where knowledge of facts sought to be used against the defendant is gained from an "independent source" they may be proved like any others but that the knowledge is gained by the Government's own wrong many not be used derivatively against defendant. In **McGuire v. United States[26]**, it was held that where the officers' knowledge of contraband whiskey was obtained lawfully prior to and independently of illegal search, their testimony was not tainted by their illegal seizure of such whiskey. In the case of **Zap v. United States[27]**, the Court held that the officers' knowledge of incriminating document was obtained lawfully prior to and independently of their action in seizing the document in violation of the Fourth Amendment and therefore they could testify concerning facts as to such document known to them by reason of such knowledge. In **Warren v. Hawaii[28]** it was held that the "knowledge of facts gained from a proper independent source… may be used, though it also may be obtained from an illegal act."

However, i **United States v. Paroutian[29]**, it was observed that A showing that the Government had sufficient independent information available so that in the normal course of events it might have discovered the questioned evidence without an illegal search cannot excuse the illegality or cure tainted matter…….. The test must be one of actualities, not possibilities …. As the government failed to show any source for its information other than the illegal search…. We hold that the failure to suppress this evidence was prejudicial error.

Position In India

The law of evidence in India does not preclude any evidence based on the means of acquiring it. The Indian Evidence Act, 1872 does not forbid the courts of law from taking into consideration evidence that might have been illicitly obtained, if it is seen that it is relevant to the matter or it contributes to establishing the guilt or proves the innocence of a suspect. The Courts in India have time and again held that illegally or improperly obtained evidence is not per se admissible. There are various methods used by investigating agencies to obtain evidence illegally, some of the common means being:

- o *Phone Tapping/Recording, except in accordance with law;*
- o *Illegal Search and Seizure*
- o *Forced Narcoanalysis*
- o *Secret recordings using cameras*

The attitude of disregard of procedures and due process, the deplorable quality of our investigation as well as the apparent reluctance of the Courts to exclude illegally obtained

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25   Supra, Note 3

26   273 U.S. 95 (1927)

27   328 U.S. 624 (1946)

28   119 F.2d 936 (9th Cir. 1941)

29   29 299 F.2d 486 (2nd Cir. 1962)

evidence are the main reasons that illicit obtaining of evidence goes on unchecked in India. The Courts generally accept any evidence based on the criteria of relevance and irrespective of how it was obtained. This is also done for the fear of letting a guilty person go on what is perceived to be a mere technicality. The perils of accepting the fruits of a poisonous tree are, therefore, very real. Other jurisdictions have moved away from the principle, either totally or, at any rate, substantially diluted it. Throwing out 'illegally obtained evidence' would undoubtedly compel the police to improve their methods and investigate in accordance with the law. It would also protect due process rights, personal liberty and check police arbitrariness. However, in India there is a serious need to rethink the courts' view on 'admissibility of illegally obtained evidence'. The approach presently taken by the courts is 'ends justify the means' whereas this is capable of grave prejudice and is largely responsible for the abysmal quality of investigations in the country and a serious reconsideration of this is needed.

Law Commission Recommendation

The Law Commission of India, in its 94th Report, suggested the incorporation of a provision Section 166-A in Chapter 10 of the Evidence Act which, if enacted, would have read as "In a criminal proceeding, where it is shown that anything in evidence was obtained by illegal or improper means, the court, after considering the nature of the illegality or impropriety and all the circumstances under which the thing tendered was obtained, may refuse to admit it in evidence, if the court is of the opinion that because of the nature of the illegal or improper means by which it was obtained its admission would tend to bring the administration of justice into disrepute."

The Law Commission also suggested that a court, while making the above assessment, may consider all the circumstances surrounding the proceedings and the manner in which the evidence was obtained, including but not limited to:

1. the extent to which human dignity and social values were violated in obtaining the evidence
2. the seriousness of the case;
3. the importance of the evidence;
4. the question whether any harm to an accused or others was inflicted wilfully or not.
5. the question of whether circumstances were justifying the action, such as a situation of urgency requiring action to prevent the destruction or loss of evidence.

However, none of the above was ever implemented and the courts, in India, except a handful of decisions to the contrary (not capable of general application), continue to go by the dictum of 'even if it's stolen, it is admissible in evidence'.

Suggestions

The countries which originally incorporated this principle have moved away from it and so must India. On the judiciary's side, the Supreme Court's judgment in Puttaswamy, followed by the Bombay High Court's judgment, is definitely a step in the right direction and a step we welcome. Having said that, an amendment in the law is imperative to clearly lay down a rule where the court is given the discretion to exclude illegally obtained evidence; which discretion may be exercised – keeping in mind a variety of circumstances as detailed above. If the change doesn't come-in from the legislature, the judiciary must clearly lay down exclusionary principles (as in US) or put the 'unfair operation principle' (inspired from UK) on firmer legal ground. It is high time that the law, instead of looking the other way, must dis-incentivise illegal investigations and protect due process by refusing to receive illegally obtained evidence.

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BIBLICAL ECHOES IN MODERN MALAYALAM LITERATURE;
A STUDY OF SARAH JOSEPH'S 'AATHI'

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Abstract

Sarah Joseph's Aathi is a novel that narrates the present-day tragedy resulting from water exploitation, environmental pollution and consumerism. In the novel Aathi, that tells the story of the Aathi country, Aathi's orbit is formed around water. "Aathi" reveals the horrible face of human cruelty that defiles the earth or soil, the most important of the five elements. When we reach Aathi from Sarah Joseph's first novel, "Daughters of Allah", which is presented in a feminist perspective, we also see a linear shift in the approach to the five elements of soil, water and air in a three-dimensional way. This study is a historical and theoretical analysis of the influence of the Bible on "Aathi".

Key words:- Land, water, Aathi, power.

Introduction

More than a religious book, the Bible is a path of human philosophical exploration, a historical record of human liberation, and also a literary work. This book, which has greatly inspired thinkers and writers in various parts of the world, came into the consciousness and literary culture of Malayalis as a strong influence in the nineteenth century. During this period, the Bible translation efforts that became active in Kerala, the educational activities of missionaries, and the Christian propagation campaigns created an environment for a new cultural integration. The new humanity based on love presented by the Bible became an impetus for Renaissance thoughts in Kerala, where caste, religious, and class divisions existed. Changes began to occur in the lifestyle and moral concepts of the native Christians as a result of the influence of Western missionaries from the seventeenth century onwards, In the nineteenth century, as a result of the work of Protestant missionaries, English education became universal, and Malayalis had more opportunities to become familiar with and read Western literary works. Through the classic works they were introduced to directly and through translations, Malayalis gained the essence and value concept of the Bible. Thus, the recitation of great works became the foundation of biblical culture. Studies that analyze the literary form of the novel, which emerged in the Malayalam language as a remnant of European modernity, in the context of the Bible are not only part of literary studies; they are also part of cultural studies.

Indigenous Culture and the Bible

The culture of a country is a storehouse of practical local knowledge that a local people have acquired over many years from their place of residence, and the knowledge passed down through generations by the people who lived in the biosphere of the soil. The culture of the country is a culture that emerged around water, the basis of life. The ancestors of a certain time, who faced humiliation and slavery, fled their own land for fear of being trampled to death. They arrived as refugees in a land untouched by humans. "A place completely isolated from the outside world, a place of water, mud and swamp! Water all around. Forests submerged in water. Land floating in water. Three small islands rising in the east, falling in the west and then lying untouched anywhere. All together, it is Aathi. Around Aathi is a lake." (Sarah Joseph, 2011: 49)

Although there was nothing to eat, wear or live in, the abundance of water motivated the ancestors to live. They all started from the beginning. The land that started from the beginning was known as Aathi

"Darkness spread over the deep. The earth was formless and desolate" (Sarah Joseph, 2011: 9)

This is how the novelist introduces the original form of Aathi The fact that everything started from nothing is reminiscent of the first pages of the Bible. Reminder. The first verse of the Book of Genesis, which describes the beginning of creation, begins with "In the beginning God created the heavens and the earth. The earth was formless and empty, and darkness was over the face of the deep" (Genesis 1:1). The origin of the homeland in the novel is also in the structure of the creation account in the Bible. More precisely, this description is consistent with the concept of Eden, which God gave to man with a duty to care for it. Eden was surrounded by water.

"A river went out of Eden to water the garden, and from there it parted and became four heads. The name of the first is Pishon. It flows around the whole land of Havilah, the land of gold. The name of the second is Gihon. It flows around the land of Cush. The name of the third is Tigris. It flows east of Assyria. The fourth is the Euphrates. The Lord God put the man there to cultivate the garden of Eden and to keep it." (Genesis 2:10-16)

Like Eden, the land was surrounded by marshes. Although salt water rose on all sides, the water in the middle of the land was fresh and unsalted. The ancestors decided that it was enough to sustain life. ""But everything must come to an end. They sighed. The land that began from the beginning has become the land of Eden." (Sarah Joseph, 2011:50)

Even the naming of the land is consistent with the name of the book of Genesis. "The first book of the Bible was named Genesis because it describes the origin of the universe, man, Israel, and the first fathers. However, in the original language, Hebrew, the title is Beresheet, which means "in the beginning." The word "Breshith" came into being as a book title because it discusses the beginning of the universe and humanity, the beginning of the relationship

between God and man. In the third century BC, "Breshith" was translated into Greek as "Genesis." The Greek word "Genesis" means origin, beginning, origin, and creation. (Paul Kalluveetil, 1994:38)

In short, the book "Genesis" that presents the beautiful history of God's first plan is appropriately named "Breshiti" (in the beginning), and the novel that describes the beginning and growth of a country is appropriately named " Aathi " in the sense of a country that began from the beginning.

The story of Atidesha can also be read in connection with the creation story. Just as God formed the universe from a formless and empty earth, the ancestors formed a swampy area as Atidesha. The Bible's view that the spirit of God was moving over the waters (Genesis 1:1) is also what Sarah Joseph also borrows when talking about Atidesha.

The spirit of God can be translated as a strong wind or the spirit of God according to the Hebrew root. (Bible, 1998:2) In the beginning, the formless earth had land and sea. There were birds, animals, and plants. The creatures that moved over the waters The spirit of God made the universe fruitful.

The first man created by God is called "Adam." The Hebrew word "adama" means dust, soil, and earth. There is an inextricable connection between soil and man. Adam is the one formed from "adama." Man is the embodiment of soil. His mission is to work the soil. He can only live if the earth is pleased. The earth is thirsty for human touch. "Adam" is in a state of struggle to realize the spiritual desire that sprouted through Adam's care to grow, blossom, and bear fruit. Thus, the Yahwist tradition depicts a situation where Adam cannot exist without Adam and Adam cannot exist without "adama." (Paul Kalluveetil, 1994:32)

The ancestors who came to Aathi made the land fruitful with their labour, just as in Eden. They did not know how to fish in the swamps. "None of them were fishermen. None of them were capable of catching people. It was hunger that made them fishermen. When they had toiled hard all night and caught nothing, their hearts told them, "Put out into the deep and let down your nets." Without despairing, they followed their hearts. A huge school of fish got caught in their nets. When the nets began to tear, they called for help. They filled two boats with fish until they almost sank." (Sarah Joseph, 2011: 50)

This fishing history of the people who came to Aathi is reminiscent of the miraculous catch of fish in the Bible. The Gospel of Luke, chapter 5, describes the miraculous catch of fish that occurred through the intervention of Jesus (Luke 5:3-11). The words of that description are the same as those adopted in Sarah Joseph's novel without much variation.

The Pari people, who shared nature and water resources without exploiting them, grew up in the remote area. They cultivated paddy seeds suitable for cultivation in the salt marsh. They built dams between the marsh and the lake, and when the water in the pond receded, they made earthen mounds to dry them. When the salt washed away during the summer rains, they allowed the seeds to germinate. They found a way to survive by raising shrimp during the six

months when farming was not possible. In this agricultural culture, they relied on nature itself to measure time and maintain their rhythm of life. The year, the summer, the high tide, the low tide, the wind, the new moon, the full moon, the work of the scythe, the sun, the monsoon rains, and the heat of the fish pond all reminded us of the cycle of time. They were not afraid to leave all the doors of their houses open day and night. There were no thieves or robbers there. A small community that lived in peace and innocence, relying on their own strength, the structure of the earth, and the changing weather without competing with anything. That was their homeland.

Aathi : Water Lessons

It has been observed that the Bible is most fond of water among the five elements. "In the beginning God created the heavens and the earth. The earth was formless and void, and darkness was over the face of the deep. And the Spirit of God was hovering over the face of the waters" (Genesis 1:1) From this reference in the Book of Genesis that the Spirit of God was hovering over the face of the waters to the invitation in the last book of the Bible, Revelation, "Let anyone who thirsts come; let anyone who wishes take the water of life free" (Revelation 22:17), the word water is repeated in more than seven hundred places. The very existence of a country depends on how much water it has. Most of the important cities are located on the banks of rivers. For example, the Nile in Egypt, the Tigris in Rome, and the Euphrates in Babylon. Civilizations have formed and grown on the banks of rivers. The very formation of human cultural life is related to water.

The culture of the homeland is formed from the abundance of water. Water is their life. It is the meaning of life. It is a model for living (Sarah Joseph, 2011: 208). Humans and other living beings in the homeland have been bound by an invisible water covenant since the beginning of time. ""You will give us water and sustenance. We will work in you and take care of you"" (Sarah Joseph, 2011: 185) The paths of life and hope for life were the paths of water for them.

Nurmuhammed, who came to tell the story in the homeland, held Dinakaran close to his chest and talked about the purity of water. "Water is not just a thing to wash away dirt. It is equal to God because it knows the mysteries of life. Baptism is done with water." (Sarah Joseph, 2011: 230) In the Bible, the external sign of baptism is immersion in the river.

If Shailaja wants to return, the water in Chakkamkandam must be cleared. If that is to be cleared, Chandramohan hopes that there will be a flood. Chandramohan's words remind us of the flood in the time of Noah in the Old Testament of the Bible.

The flood in the time of Noah was the baptism of the earth. When wickedness increased on the earth, God sent rain for forty days and forty nights. As God had promised, righteous Noah, his family, and every pair of birds and animals were saved in the ark. "The flood continued for forty days. The waters rose fifteen cubits above the mountains. Every living thing that moved on the face of the earth, birds, cattle, wild animals, creeping things, and man, all died.

At the end of one hundred and fifty days the waters had subsided greatly. The ark rested on the mountains of Ararat. And God set up the rainbow as a sign of the covenant of peace with the earth" (Genesis 8:1-19).

Chandramohan believes that Chakkamkandam will be cleansed only if this cleansing act of God is repeated. "Since we pollute the earth with our hearts, there must be a flood powerful enough to wash away all sins, all sorrows, and all the impurities of the heart. After the flood, only clear water like tears of repentance should remain. A rainbow should appear over the water and peace should fill the earth." (Sarah Joseph, 2011: 209)

Chandramohan affirms the biblical view that water becomes polluted when evil increases in the heart and that water can be purified only when the evil in the heart is purified. The essence is that the water becoming muddy and the water becoming stagnant are not just physical crises or problems. There are dangerous reinterpretations of some cultural and internal currents in it. The concern for water is a cry for life. Life is not a mere word related to life. It is a word as broad as the universe. That is why Jesus said this at a moment when he had to reveal himself.

"On the last great day of the Feast of Tabernacles, Jesus stood up and He cried out, "If anyone thirsts, let him drink from me; as the Scripture has said, 'Out of his heart will flow rivers of living water.'" (John 7:37-38).

The ritual context of this is worth noting. Water was a constant problem in Jerusalem. On the last day of the feast, the high priest filled golden jars with water from the Pool of Siloam, circled the altar seven times, and poured it out through two pipes. The people bore witness to this with branches in their hands. Jesus proclaims that the river flowing from the altar is himself. John is more certain in the book of Revelation. The river proceeds from the throne of God and of the Lamb (Revelation 22:1).

Hagar is resurrected as a memory in the wilderness during the journey in search of water. On the first morning, the storyteller tells the story of Hagar. Hagar is the maidservant of Sarah, the wife of Abraham, the forefather. Sarah herself asks Abraham to send her and her son Ishmael, whom she bore to Abraham, away. Having received God's promise that the son born of the slave girl will also become a nation, Abraham sends Hagar away from home early in the morning with bread and a skin bag of water.

"When the water in the bag was finished, she laid the child in a bush. She said, "I cannot bear to see the child die." She went a distance of an arrow and turned to the opposite side. The child began to cry loudly. God heard the child's cry. The angel of God called her from heaven and said, "Hagar, do not be afraid or distressed, for God has heard the child's cry. Arise, take the child in your arms, for I will make a great nation of him." God opened her eyes. She saw a well. She went and filled the skin bag and gave the child a drink." (Genesis 21:15-20).

The storyteller Nurmuhad gives a folk interpretation to this story recorded in the Bible.

Hagar, who is searching for the source of life, is faced with the blazing sun, the unjust wind,

and the sand that kicks up coals on her trembling feet. Talking. Finally, in despair, Hagar, who was lying on her back, hears calling out her name and searching everywhere for the sound. She was amazed to see a strange-looking bird flapping its wings in the desert and a spring gushing from there. Screaming, she took the baby and immersed herself in the water until her breasts were full of milk.

She told the nomads and tribesmen who had come to the desert to find Hagar, the ruler of water, and the spring. "I will be the owner of the water. I am not telling you this in the name of power; I am telling you this in the name of life. I am the one who knew that the price of the first drop of water was the price of my child." (Sarah Joseph, 2011: 20)

Hagar is the mother of the water covenant in the desert. And of a new nation. Aathi speaks from the postmodern era, when human life becomes a sum of disasters through the shocking collapse of ideals, moral concepts of justice, and political values. This novel violates the currents of traditional writing by mixing language, imagination, and country. In Hagar's history, the novelist presents a parallel history of people by distorting and deconstructing the history of power. This is close to neo-historicism. Novel literature is transformed into a social and cultural construction. The story of Hagar in Aathi is formed from the realization that history influences literature and literature influences history.

From Hagar when they reach Muktar, things take a turn for the worse. Divakaran tells this story as if it were a prophecy on the seventh night. Muktar is from the ten thousand five hundred and sixty-eighth generation of Hagar. At the age of twenty-seven, she had to leave the country along with her people. A water war was going on in the streets. Here is the fulfillment of Ismail Serageld's prophecy that "in the future, the disputes will not be over land or oil; but over water, which is called blue gold" (Vandana Shiva, 2007:7). When even the rainwater of their own land was denied, the people, led by Mukhtar, set out in search of free-flowing water. Their journey parallels the journey of the Israelites under Moses, described in the Bible's Book of Exodus. Moses led the Israelites through the wilderness for forty years to bring them to the promised land of Canaan, flowing with milk and honey. When they could not find good water or enough food, the people grumbled against Moses.

"It would have been better if we had died by the hand of the Lord in Egypt, when we were sitting by the meat bowl and eating bread to our hearts' content. But you have brought us out into this wilderness to kill the whole community with hunger" (Exodus 16:3)

The wandering people led by Mukhtar also often raised their voices in protest against Mukhtar. "Is it because there are no graves in the land that you have brought us here?" they began to ask. (Sarah Joseph, 2011 : 270) Mukhtar and her friends did not receive the miracles that awaited Hagar. Mukhtar had hidden the water that she had collected in the barrel inside a straw sack. When she fled from her home, she wrapped it in shrouds and decorated it with flowers. Women dressed in black sat around it and wept, their tears not stopping. The shroud did not cover the water; They believed that it was their own father or brother.

No matter how much they wandered, they could not find a direction where green water flowed freely. Mukhtar's journey will be endless. Once water wars start on earth, no one will get a chance, adds the storyteller Dinakaran. The author points out a strong indication that no more miracles await anyone when she reaches Mukhtar from Hagar.

Conclusion

Sarah Joseph, narrates in a postmodern style, based on biblical culture, adopts contemporary concepts while maintaining the background of the Bible in its original language, narrative, and vision. It introduces new ideas about place. It brings innovative concepts of justice about authorship, cultural geography, and cultural politics. The novel transforms biblical views into political values, such as universal man, connected to the soil, land, water and sky, by correcting the notion that human existence is a heap of philosophical woes. This narrative establishes that religion and spirituality cannot exist without being part of the history of liberation. Although it clashes with systematic religious concepts, the novel ultimately aims to express the humanistic vision brought by the Bible in the New Testament.

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Biblical Echoes in Modern Malayalam Literature; A Study of Sarah Joseph's 'Aathi'

The Intersection of Faith and Fiction: Exploring Biblical motifs in Sarah Joseph's 'Aathi'

The Sacred and the Secular : Exploring Biblical themes in Sarah Joseph's 'Aathi'

QUANTIFIED FOR THE QUALIFIED LIFE: DIGITAL PANOPTICON AND HUMAN OBSOLESCENCE IN MARC-UWE KLING'S QUALITYLAND

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Abstract

This paper analyses Marc-Uwe Kling's funny dystopian fiction, *QualityLand*, through the lens of digital surveillance and human obsolescence in an increasingly automated world. Drawing on Byung Chul Han's concept of the digital panopticon, Don Ihde's postphenomenological framework, and contemporary discourses on technological singularity and forms of capitalism, this study explores how the novel portrays the transformation of human society through datafication and algorithmic governance. This study demonstrates how *QualityLand*'s satirical elements reveal more profound anxieties about human agency and authenticity in a technologically mediated world. Through close textual analysis, this study also argues that the novel presents human obsolescence not as a sudden technological effect but as a gradual, voluntary surrender of agency through the mechanisms of quantification and optimisation.

Key Words:- Datafication, Digital surveillance, Panopticon, Postphenomenology, Human Obsolescence

Introduction

Society 5.0 with Industry 5.0 and Healthcare 5.0 marks a new era where the human lifeworld seamlessly integrates with digital technologies. Breakthroughs like developments of Digital Twins and Human Digital Twins (HDT) continue to blur the boundaries between physical and cyber realms increasingly. Fontes et al. describe this convergence as "a conceptual framework where humans exist as peers alongside other humans and artificial agents in cyberspace, ... ultimately catalysing the emergence of digital selves" (54). It has profound implications for human agency and identity. With the advancement of super-smart intelligence, human society faces unprecedented challenges in the form of technological singularity. Ray Kurzweil predicted that machine intelligence will surpass human capabilities across all domains shortly. He asserts that "the key idea underlying the impending Singularity is that the pace of change of our human-created technology is accelerating, and its powers are expanding at an exponential pace" (14). This implies the widespread use of General AI replacing Particular AI. Max Tegmark, in his book *Life 3.0: Being Human in the Age of Artificial Intelligence*, states in a section on Human-Level Intelligence that "we do not know how far we are from

the finish line in terms of architectures, algorithms and software, but current progress is swift, and the challenges are being tackled by a rapidly growing global community of talented AI researchers. In other words, we cannot dismiss the possibility that AGI will eventually reach human levels and beyond". Byung Chul Han, a famous Korean German philosopher, is apprehensive of this shift. He thinks this may transform human society from a disciplinary one to a transparent one through various stages of control. This omniscient control is similar to that of a digital panopticon.

> Today's society of control possesses a distinct panoptic structure. In contrast to the occupants of the Benthamian panopticon, who are isolated from each other, the inhabitants of today's panopticon network communicate with each other intensively. Not lonesomeness through isolation, but hypercommunication guarantees transparency. Above all, the particularity of the digital panopticon is that its inhabitants actively collaborate in its construction and maintenance by putting themselves on display and baring themselves. (Han, *Transparency* 46)

This transparent society is created through continuous datafication of personal and public spaces, which allows beings to be continuously surveilled and voluntarily optimised. This, in effect, leads to human obsolescence and irrelevance.

Mirroring this uncertain human future, Marc-Uwe Kling's speculative fiction *QualityLand* (2017) foresees a world in which human and digital realms integrate while posing risks for human survival. The novel satirises a world where technological optimisation is glorified, paradoxically leading to fundamental human obsolescence in a technologically saturated world. It also presents a society where algorithmic governance and digital surveillance have evolved beyond mere monitoring into comprehensive systems of social control and human optimisation. Using satire, *QualityLand* exposes how technological advancement leads to fundamental human obsolescence. The novel offers a unique perspective on capitalism in quantification and datafication of human lifeworld. This paper examines *QualityLand* as a symbol of future human contingencies in integrating human technological realms. The study also looks into how the novel builds on new forms of human-technology relations and shapes future human agency. It investigates how datafication of the human lifeworld becomes a primary site for human and non-human exploitation through various modes of capitalism: affective, cognitive, digital, surveillance, and posthuman capitalism.

The author Marc-Uwe Kling envisions *QualityLand* as a funny dystopia (Klüppel 231). "Among science fiction literature about automation and AI imaginaries, *QualityLand* by Marc-Uwe Kling stands out with a critical perspective to describe people's experiences with technologies very similar to those widely used today. *QualityLand* uses a hyperbolic tone and stems from a critical perspective to depict critical imaginaries about automated decision-making technologies in the datafied society" (Rosales and Suárez-Gonzalo 72). Despite being a satire that has gained widespread readership and critical attention, one notable review by Jeroen Admiraal observes that "there is not much of a plot – it has a skeleton of a

story, jumping from topic to topic with occasional newsfeeds in between. It is a book written in a stand-up comedy way for an ADHD generation." Though it is called a funny dystopia, it joins a growing corpus of speculative fiction that examines human-technology integration, starting with Aldous Huxley's *Brave New World* (1932), followed by George Orwell's *1984* (1949), Ray Bradbury's *Fahrenheit 451* (1953), Kurt Vonnegut's *Player Piano* (1952), Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968), and with that of contemporary narratives of Dave Eggers's *The Circle* (2013), *The Every* (2021), and Kazuo Ishiguro's *Klara and the Sun* (2021)**.** Still, *QualityLand* is distinct as it focuses on the voluntary nature of digital submission. It also exposes the gradual erosion of human agency through convenience and optimisation and offers a contemporary perspective on these enduring concerns.

Mediated Worlds

Don Ihde's postphenomenological framework provides tools for analysing the complex human technology relations depicted in *QualityLand*. In his book *Technology and the Lifeworld: From Garden to Earth*, Ihde develops four dimensions of human technology relations: embodiment relations (experiencing through technology) (72), hermeneutic relations (reading and interpreting technology) (80), alterity relations (interacting with technology as quasi-other) (97), and background relations (technology shaping environmental context) (108). This theoretical approach reveals that human experience is fundamentally entangled with technology and suggests no pure human experience outside technological mediation. Yoni Van Den Eede illustrates Don Ihde's four dimensions of human-technology relations through a fitness tracker example (such as the Jawbone Up2 or the FitBit Flex3): embodiment (wristband becoming part of body scheme), hermeneutic (interpreting data through app interfaces), alterity (device acting as a personal trainer/coach), and background (system fading from awareness while still influencing behaviour) (146).

QualityLand presents a society where even the country's name reflects technological determinism. The novel portrays a world where digital and analogue realities coexist despite increasing technological mediation. It is a highly automated society where algorithms control every aspect of life. Through its narrative structure and character interactions, the text demonstrates how Ihde's four relations manifest in a technologically saturated lifeworld where digital mediation fundamentally reshapes human existence.

Embodiment relations in *QualityLand* are primarily illustrated through citizens' integration with personal digital assistants, who act as their extensions. The novel explicitly describes this phenomenon. In the chapter on earworms, the narrator illustrates the particular behaviour patterns of the citizens of *QualitLand*. "As you stroll through the streets of QualityLand, you will probably notice people chattering away to themselves, yet seemingly without headsets on. Contrary to how it may appear, these people are not crazy. Alternatively, at least, not all of them are. Most talk to their personal digital assistants via the earworm". Peter Jobless's and Sandra's use of their personal digital assistants, *Nobody* and *Sweetie*, mirrors contemporary technologies like Alexa or Siri.

In the chapter *The Kiss*, a description of *Nobody* shows the loneliness that digitally connected citizens of *QualityLand* suffer. "*Nobody* is Peter's personal digital assistant. Peter picked out the name himself, because he often feels as though *Nobody* is there for him. *Nobody* helps him. *Nobody* listens to him. *Nobody* speaks to him. *Nobody* pays attention to him. *Nobody* makes decisions for him. Peter has even convinced himself that Nobody likes him". It also anticipates present developments in human digital twins (HDT). These technologies function as transparent mediators that extend human capabilities and change human perception. The *QualityPad* mediates users' perception of reality through its constant notifications and updates. It becomes an almost invisible interface through which citizens of QualityLand interact with their environment. Security systems for perception, automated transport systems, self-driving vehicles, healthcare monitoring devices, environmental control systems and payment processing systems stand for technological extensions of QualityLand's citizens.

Technological interpretation systems work in the level system, algorithmic predictions, and social scoring mechanisms for citizens to understand their social position and opportunities. The novel demonstrates this by describing the RateMe system in the novel: "You register for RateMe, give the system access to your data with a kiss, and are then immediately graded". Through TheShop's predictive algorithms, the novel shows how technology interprets and actively shapes human desires, creating what Verbeek terms "technological intentionality" that co-determines human experience and decision-making (56). "Self-tracking technology, too, seems to represent a fitting example of such multi-facetedness" (Van Den Eede 146). The novel expresses hermeneutic relations of the members of QualityLand (Technology that requires interpretation) through TheShop's prediction algorithms, level ranking algorithms, news curation systems, search algorithms, voting systems, healthcare evaluation systems, social credit scoring, financial analytics, risk assessment systems and privacy management systems.

The novel's portrayal of AI entities, particularly John of Us, the Android Presidential candidate, and Peter's collection of defective machines, shows the alterity relations where technology is considered a quasi-other. These technological beings transcend their status as tools to become quasi-others, presenting complex questions about consciousness and authentic city. These relationships, primarily through Peter's emotional connection to his defective machines, challenge traditional boundaries between humans and machines. It also explores the implications of human-machine emotional bonds. These alterity relations are found in Romeo (romantic sexbot), Calliope (e-poet), Pink (sarcastic QualityPad), Mickey (combat robot), Carrie (fearful drone), David (directionless car), Electronic nannies, Partner matching systems and Content creation AI.

Background relations (technology as context) in *QualityLand* operate through a sophisticated digital panopticon where surveillance and algorithmic control create an invisible architecture of power. This manifests through multiple layers, such as continuous data

collection, real-time behavioural tracking, automated social credit systems, and algorithmic governance. The novel demonstrates how citizens internalise these monitoring mechanisms and modify their behaviour not through direct coercion but through awareness of constant evaluation. This datafication becomes the foundation for complete social control. It represents the novel's ultimate perils of automation and self-optimisation in a technologically mediated society. Some background relations exist in the form of Automated infrastructure, Surveillance systems, Data collection systems, Privacy control mechanisms, Security clearance systems, Environmental monitoring, Transaction tracking, Communication networks, Automated fulfilment centres, Press drones, Automated waste management and Maintenance scheduling.

Quantified and Datafied

Natasha D. Schull states that "the capacity to amass, store, and analyse data drawn from the physiological, behavioural, and "geolocational" experience of individuals is growing at an exponential rate and spreading to an ever-wider range of social domains" (909). She argues that datafication decomposes the person and… we are becoming persons without qualities" (910). She is also apprehensive about deploying algorithms, artificial intelligence, and other technologies of quantification that work against human agency and self-image. While sharing her ideas, Colin Koopman's book *How We Became Our Data* says, "the pragmatics of the self are always coproduced with technologies of the self" (8).

QualityLand depicts a society where datafication forms the fundamental architecture of social existence. "…. their utopianism from a collectivist standpoint and the argument for an "optimisation" of life quality for its citizens. Using automation and AI-based algorithms, both aim to provide "quality of life" via a well-run system that gives people what they need and thus generates a form of psychological relief through benevolent authoritarianism" (Schmeink 390). Every human experience transforms into quantifiable data points through comprehensive monitoring systems like *Nobody, Sweeti, drones, and TheSho*'s predictive algorithms. This digital representation supersedes physical reality in authority and influence. The novel illustrates datafication beyond mere collection, demonstrating its role in shaping human behaviour, desires, and social relationships. The level system determines social status through data analysis. Matching algorithms control relationships and partners in QualityLand. Predictive systems shape desires before conscious awareness. This totalising nature of datafication creates new forms of social control and stratification. Privacy becomes a rare privilege. Human agency diminishes under algorithmic decisions. The system's self-perpetuating nature makes resistance nearly impossible, as evidenced by Peter's futile struggle against TheShop's predictions. Economic success becomes inseparable from data profiles—political governance shifts to algorithmic decision-making through AI systems like John of Us. Transforming human experience into quantifiable data establishes governance structures that appear inevitable and unalterable.

Deborah Lupton explains that "self-tracking practices are directed at regularly monitoring and recording, and often measuring, elements of an individual's behaviours or

bodily functions" (2). However, she reveals the perils of self-tracking and self-quantification.

> …many forms of personal information are generated by people's routine engagements and online transactions or by their movements in spaces embedded with sensors or fitted with cameras that monitor them. Only a small proportion of this information is accessible to the subjects of this monitoring. Indeed, in many cases people have no knowledge of what data are collected on them, where these data are stored and to what purposes they are used by other actors and agencies. These are examples not of self-tracking, but of tracking of the self by others. (2)

This quantified self-movement has reached extreme manifestation in *QualityLand*'s society. Everyone tracks every aspect of their lives through continuous monitoring devices. Physical health, emotional states, social interactions, and consumption patterns undergo constant analysis. This comprehensive self-monitoring creates feedback loops where behaviour adjusts based on data metrics. Personal identity becomes defined by data profiles rather than introspection or direct experience. The society operates under constant self-optimisation imperatives. Citizens pursue metric improvement across all life domains. Relationships undergo evaluation through compatibility scores. Work productivity follows algorithmic governance. Memory and temporal experience become externalised through continuous recording and analysis. The novel explores authenticity maintenance challenges through characters like Peter, Kiki, Martin etc. His struggle highlights the difficulty of resisting algorithmic predictions or preserving unquantified experiences. The narrative critically exposes current self-tracking trends using smart technological wearable devices by suggesting their potential to diminish the authentic human experience. This total self-quantification raises fundamental questions about human identity in an algorithmically mediated age. The novel thus serves as a warning about the consequences of allowing data-driven systems to dominate social organisation and personal experience.

The Tentacles of Contemporary Capitalism

QualityLand offers a multifaceted critique of contemporary capitalism's evolving forms and collective impact on society. Joscha Kluppel notes that the novel serves as "both a timely and effective commentary on our modern capitalist consumer-driven society, showing potential trajectories of technology and the ongoing exploitation of the public that it is used for" (244). The narrative exposes various modes of capitalism that make human beings obsolete in the automation process. Emotions and relationships are commodified. "In the culture of emotional capitalism, emotions have become entities to be evaluated, inspected, discussed, bargained, quantified, and commodified" (Illouz 115). *TheShop*'s manipulation of desires and Romeo's commercialisation of intimate connections manifest how capital encroaches into the intimate realms of personal life. The novel's level system predicts emotional hierarchies that blur the distinction between authentic and manufactured feelings.

Cognitive capitalism operates through the exploitation of mental labour and data collection (Boutang 48), with *QualityLand*'s surveillance system converting thought patterns

into marketable information. We find complete social and economic life digitisation in QualityLand, where TheShop's marketplace and digital profiles determine social status. The presence of digital entities like Nobody and Sweetie demonstrates how digital representations increasingly supersede physical reality. Techno-capitalism functions through continuous technological innovation that serves corporate interests rather than human needs, evidenced by the systematic elimination of consumer agency while maintaining an illusion of choice. Finally, posthuman capitalism emerges through the merger of human and machine capabilities for capital accumulation, represented by John of Us and the increasing integration of human enhancement with artificial intelligence. Yasmin Ibrahim shows, "the data economy and the human as inextricably and incestuously bound in the age of the digital pledges our consciousness, subjectivity and mortality to the realm of machines to extend, reconfigure and repossess (or re-occupy) in immaterial modes" (1). These overlapping systems create a comprehensive framework where human experience, consciousness, digital existence, and technological innovation become subordinate to capital accumulation. The novel reveals the adaptive capacity of capital to commodify every aspect of human existence, creating a world where authentic experience becomes increasingly indistinguishable from its commercialised versions. Through this portrayal, QualityLand demonstrates how modern capitalism's various manifestations work together to create a totalising system that shapes all human and machine existence.

Transparency and Digital Panopticon

QualityLand presents the evolution of surveillance into a digital panopticon through its depiction of transparency as a control mechanism and value extraction method. Shoshana Zuboff calls this kind of surveillance mechanism a commercial project. "Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioural data" (8). Byung-Chul Han's theory of psychopolitics and digital surveillance is informative. The datafication and quantification of *QualityLand* have been made under the state's digital surveillance. The monitoring system operates through the voluntary participation of citizens as they are graded, and their privileges are granted on their visibility. Citizens willingly submit to comprehensive data collection and algorithmic governance. This voluntary submission transforms surveillance from external observation to internalised self-monitoring. Individual status becomes publicly visible and continuously updated. TheShop's predictive algorithms demonstrate how digital surveillance shapes desires and behaviours through personalised manipulation. The novel's treatment of John of Us, a machine politician and presidential candidate, shows the conflict in the transparency related to state governance. The preference for an android over a human candidate as president indicates the mechanical accuracy of this control. This system reflects Han's concept of innovative power. Here, control functions through psychological manipulation rather than physical force. Integrating narrow AI (specialised systems) and general AI (represented by John of Us) creates a comprehensive digital monitoring framework that shapes all aspects of social life. This is evident when Han says:

However, today's compulsive transparency no longer has an explicitly moral or biopolitical imperative; above all, it follows an economic imperative. People who illuminate themselves entirely surrender to exploitation. Illumination is exploitation. Overexposing individual subjects maximises economic efficiency. The transparent customer is the new prisoner-indeed, the homo sacer-of the digital panopticon. (49)

The transparency regime in the novel operates paradoxically as both an instrument of control and a source of societal dysfunction. The novel presents transparency through multiple dimensions, such as quantified relationships, visible social metrics, and algorithmic decision-making systems. All these systems create a perpetual visibility citizens accept as natural and beneficial. However, this visible layer masks deeper forms of control and manipulation. The metrics society in *QualityLand* is under constant psychological pressure as they need to submit for constant evaluation and performance measures. The erosion of privacy occurs not through force but through the voluntary surrender of personal data. This comprehensive transparency creates a false consciousness where visible metrics obscure hidden control mechanisms. The novel through Peter Jobless presents the resistance against transparency, visibility and opacity requirements under a digital panopticon. This critique challenges contemporary assumptions about transparency's relationship to freedom and truth. *QualityLand* thus serves as both a validation of current theoretical frameworks regarding digital surveillance and a warning about the potential evolution of transparency regimes. The novel demonstrates how complete visibility in digital society might paradoxically result in reduced human agency and authentic experience. This analysis reveals the complex relationship between transparency, surveillance, and human autonomy in an increasingly digitised world.

Human Obsolescence

QualityLand presents human obsolescence through the voluntary surrender of agency rather than a technological usurpation. Christopher John Müller talks about modern forms of human obsolescence. "For, whether we like it or not, the time we spend online contributes to our obsolescence in more than just an economic sense. The data we generate is the capital of the digital age, not only because it enables the automation of seemingly distinct human capabilities, thus potentially rendering human contributions obsolete or at least economically unviable" (Müller 134). The character Peter Jobless, a machine scrapper, is a metaphor for human redundancy in an automated society. The novel demonstrates the systematic erosion of human decision-making through multiple optimisation vectors. The predictive algorithms negate the conscious choice-making processes of the different characters in the novel. Automated systems surpass human emotional intelligence in relationship management. Digital profiles assert superiority over individual self-knowledge. Androids and various technological platforms are crucial in relegating human status and making human agency irrelevant. Citizens actively embrace algorithmic governance, and its epitome is seen in the figure of John of Us. This willing surrender indicates obsolescence through ideological conviction rather than external coercion. The redundancy extends beyond economic

displacement into fundamental questions of human value. The protagonist's resistance to automation suggests the necessity of maintaining spaces free from algorithmic optimisation. *QualityLand* presents the dilemma of living in a technology-mediated and saturated world along with Androids and other technological gadgets. The novel presents obsolescence as an existential rather than purely technological phenomenon. The novel thus demonstrates how optimisation technologies potentially nullify human agency through subtle mechanisms of voluntary participation.

Conclusion

Present technological developments show significant convergence with *QualityLand*'s speculative vision. The current phase of AI systems reveals substantive parallels with the novel's fictional technologies. Mindbank AI's development of replicas of digital consciousness corresponds directly with *QualityLand*'s portrayal of personal assistants. Both systems work on data collected and provided by the consumers of different digital technologies. Delphi AI's implementation of algorithmic moral reasoning mirrors the novel's automated ethical frameworks. Human digital twin technologies demonstrate comparable trajectories in monitoring, prediction, and optimisation capabilities. These actual world developments share fundamental characteristics with *QualityLand*'s technological infrastructure. The similarities manifest in data collection methodologies, predictive algorithms, and interactive functionalities. This alignment between contemporary technological advancement and *QualityLand*'s narrative projections enhances the novel's cautionary relevance, urging us to be mindful of the potential risks. It necessitates careful consideration of human privacy, autonomy concerns, and human agency in the evolution of society to a transparent one under the digital panopticon.

In conclusion, *QualityLand* mirrors current technological trends and warns about their potential evolution. The novel explores the impact of various forms of capitalism, technological mediation, and human obsolescence and provides insights into the challenges future societies will face. Its analyses of human agency remain relevant.

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INTERNAL DISPLACEMENT – A CASE OF SYSTEMIC INJUSTICE
THE INDIAN SCENARIO

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Abstract

Internal displacement remains one of the most pressing humanitarian crises, disproportionately affecting vulnerable communities worldwide. This paper explores internal displacement as a systemic injustice, with a particular focus on India. It categorizes displacement into three main types: disaster-induced, conflict-induced, and development-induced, each exacerbated by socio-political and economic vulnerabilities. India, with its high population density and susceptibility to natural disasters, experiences large-scale displacement annually. Additionally, armed conflicts, religious tensions, and forced evictions due to large infrastructure projects contribute significantly to the crisis. A theological and pedagogical reflection underscores the moral responsibility of societies, particularly Christian communities, to advocate for displaced populations. This paper also proposes constructive interventions, including educational programs, awareness campaigns, and policy recommendations to mitigate the adverse effects of displacement. By addressing the issue through a justice-oriented lens, this study emphasizes the urgent need for systemic reforms to uphold human dignity and social equity.

Key words:- Internal Displacement, Systemic Injustice, Disaster-Induced Displacement, Development-Induced Displacement, Human Rights, Social Justice, Refugee Crisis, Theology of Displacement

Introduction

Internal displacement means the involuntary movement of people within the country they live in.[1] Internally displaced people (IDPs) are on the run in their home country. They stay within their own country and under the protection of its government, although often that government is the reason for their displacement.[2] Kofi Annan, the former UN Secretary-General, remarked, "Internal displacement is the great tragedy of our time. The internally displaced people are among the most vulnerable of the human family."[3]

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1. "Internal Displacement," IDMC, accessed October 12, 2020, https://www.internal-displacement.org/internal-displacement, para. 1.

2. Jaz Cummins, "Internally Displaced People - Glossary of Good," Empower Agency, January 7, 2020, https://empower.agency/internally-displaced-people-glossary-of-good/, 1

3. "Internal Displacement," IDMC, para. 4.

Forced displacement is a faith dilemma for a believer. Across the globe, millions of people live through the vulnerability displacement offers. The Psalmist articulates the cry of the displaced people, "But how could we sing a song of the LORD in a foreign land?" (Ps. 137: 4).

As per the 2020 Global Report on Internal Displacement, an estimated 50.8 million internally displaced persons live worldwide. There are 45.7 million displaced due to conflict and violence, and 5.1 million are forced to move because of disasters.[4] As per the report, 18.3 million IDPs are children under 15, while 3.7 million are over 60 years.[5]

This paper examines the problem of internal displacement with particular reference to my home country, India. The paper assumes specific interest to me because I have served displaced people as a Catholic priest. The worst victims of forced displacement are women and children. I dedicate this paper to them, to share their pain.

Social and Contextual Analysis

India has the highest volume of disaster displacement in South Asia and consistently one of the world's highest. On average, 3.6 million people were displaced annually between 2008 and 2019. India is also prone to other hazards, including earthquakes, tsunamis, cyclones, storm surges, and drought. Besides, protracted conflict in India-controlled Kashmir and localized ethnic and religious violence also trigger displacement every year.[6] There were five million fresh disaster displacements in India in 2019, the highest in the world. The chief causes for these displacements are increasing hazard intensity, high population exposure, and high levels of social and economic vulnerability are the chief causes of these displacements.[7]

For the sake of convenience, in this paper, internal displacement shall be broadly grouped under three categories: disaster-induced displacement, conflict-induced displacement, and development-induced displacement. While presenting the global scenario, particular emphasis shall be paid to the Indian situation.

Disaster-Induced Displacement

Millions of people are forced to move out of their homes every year because of floods, tropical storms, droughts, melting glaciers, earthquakes, and other natural disasters. According to scientists, climate change will increase displacement in the future.[8] These catastrophic weather events have a direct impact on less developed countries.

About 1,900 disasters triggered 24.9 million new displacements across 140 countries

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4. "2020 Global Report on Internal Displacement," IDMC | GRID 2020, accessed October 17, 2020, https://www.internal-displacement.org/global-report/grid2020/, 2.

5. "2020 Global Report on Internal Displacement," 2.

6. "India." IDMC. Accessed October 17, 2020. https://www.internal-displacement.org/countries/india, 2.

7. "India." IDMC, 2.

8. Disaster Displacement. Accessed October 18, 2020. https://disasterdisplacement.org/.

and territories in 2019.[9] Cyclones India and Kenneth forced hundreds of thousands of people from their homes in Mozambique, Malawi, Madagascar, Zimbabwe, Comoros, and Mayotte. Hurricane Dorian's impact on the Bahamas was unprecedented, and the storm also triggered displacement on the neighbouring islands and in the US and Canada.[10]

India is vulnerable to a range of natural hazards. Around 68 percent of the country is prone to drought, 60 percent to earthquakes, and 75 percent of the coastline is vulnerable to cyclones and tsunamis. These physical factors, combined with the country's high population density, poverty levels, rapid urbanization, and environmental degradation, makes India most at risk of disaster-induced displacement.[11]

Tropical cyclone *Komen*, which hit Manipur and West Bengal in 2015, was a major natural disaster in India in recent years. Similarly, the monsoon flooding that affected Bihar and Assam in 2016 also caused large displacements. India recorded the third-highest number of new disaster displacements in the world in 2018. [12] The year 2019 was one of the warmest years since records began in 1901. India also had the wettest monsoon in 25 years. These conditions triggered eight tropical storms to hit the country during the year, thereby causing large displacements.[13] The south-west monsoon in 2019 caused more than 2.6 million displacements. On the day the south-west monsoon ended in a rare meteorological event, the north-west monsoon began coupled with cyclone *Maha*. Cyclone *Bulbul* that struck Odisha and West Bengal caused 186,000 displacements. [14]

Cyclone *Amphan* that hit India in May 2020, triggered around 2.4 million new displacements in India. Cyclone *Nisarga* hit the country's west coast two weeks later, causing 170,000 displacements.[15] More disaster displacement took place during the south-west monsoon season, which had its onset in late June, but no accurate figures are available yet.

Drought displacement was also recorded in the Indian states of Andhra Pradesh and Maharashtra, although precise data is unavailable. Water scarcity in Maharashtra between March and June in 2019 evicted 50,000 farmers and their families to seek asylum in "cattle camps," displacement sites operated by NGOs where livestock are also fed and watered.[16]

Conflict-Induced Displacement

Conflict-induced displacement is a global problem. Nevertheless, it is highly

9.   "2020 Global Report on Internal Displacement," 4.

10.   "2020 Global Report on Internal Displacement," 4.

11.   "India." IDMC, 4.

12.   "India." IDMC, 5.

13.   "India." IDMC, 2.

14.   "India." IDMC, 5.

15.   "India." IDMC. Accessed October 17, 2020. https://www.internal-displacement.org/countries/india, Internal displacement 2020: Mid-year update, 30.

16.   "India." IDMC, 5.

concentrated in a few countries. A global total of 45.7 million people was still displaced at the end of 2019 due to conflict and violence. Of these, three-quarter or 34.5 million were in just ten countries.[17]

Fresh incidents of conflict displacement were reported in 50 countries in 2019. The majority of them occurred in low and middle-income countries, including Syria, the Democratic Republic of the Congo (DRC), and Ethiopia, which accounted for more than a million new displacements each.[18]

Conflict-induced displacement is a regular occurrence in India. Nevertheless, it is difficult to track and obtain comprehensive data because violence is often localized. The ongoing clashes in the Kashmir region, separatism in the north-eastern states, and the Naxalite-Maoist insurgency in the central and eastern states, particularly Chhattisgarh and Jharkhand, are the main long-standing conflict issues in the country.[19]

Conflict and violence in 2019 triggered around 19,000 new displacements in India. Political and electoral violence, primarily in the Indian states of Tripura and West Bengal, accounted for more than 7,600 displacements.[20]

In February 2019, a Pakistan-based militant group, Jaish-e-Mohammad, carried out a suicide attack that killed 40 Indian soldiers in Indian-administered Kashmir.[21]This led to retaliatory air strikes and sporadic shelling near the line of control between India and Pakistani-controlled territory. Although comprehensive figures are hard to obtain, at least 5,300 displacements were recorded.[22]

Intercommunal violence, particularly in Delhi, triggered the majority of new conflict displacements in the first half of 2020. Violence erupted at the end of 2019 after the adoption of the Citizenship Amendment Act. Muslim communities felt disadvantaged by the law. They took to widespread protests, many of which turned violent. Anti-Muslim violence broke out in Delhi in February 2020, causing at least 1800 new displacements.[23] Accusations that people were failing to comply with measures to limit the spread of Covid-19 also sparked inter-communal violence, including the destruction of homes, which led to some localized displacement.[24]

Development-Induced Displacement

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17. "2020 Global Report on Internal Displacement," 3.

18. "2020 Global Report on Internal Displacement," 3.

19. "India." IDMC, 5.

20. "India." IDMC, 5.

21. "Kashmir Attack: Tracing the Path Which Led to Pulwama," BBC News (BBC, April 30, 2019), https://www.bbc.com/news/world-asia-india-47302467.

22. "India." IDMC, 5.

23. "India." IDMC. Accessed October 17, 2020. https://www.internal-displacement.org/countries/india, Internal displacement 2020: Mid-year update, 30.

24. "India." IDMC, 30.

Development-induced displacement and resettlement happen when people are forced to leave their homes or land due to development. This type of displacement is historically associated with the construction of dams for hydroelectric power and irrigation. It can also occur due to various other development projects such as mining, agriculture, military installations, airports, railways, road developments, industrial plants, weapon testing grounds, urbanization, conservation projects, and forestry.[25]

Development-induced displacement is a social problem impacting multiple levels of human organization, particularly the tribal and village communities. The term 'development' is conventionally used as synonymous with economic growth. However, for those displaced, the result is often the loss of livelihood and poverty.[26] In the post-World War II age, there has been a consistent effort to intensify the pace of development. In most developing countries, the major part of the population lives in rural areas. Abject poverty, inadequate medical facilities, lack of education opportunities, and employment characterize the rural zones.

India obtained independence from the British colonial rule in 1947. Ever since independence, India initiated a series of planned development projects. Nevertheless, these megaprojects resulted in displacing millions of people from their ancestral land.[27] The issue of displacement is seen as a necessary evil to serve the 'greater good'.[28] As per studies, over 60 million people have been displaced in the first 60 years of independent India. Much of this displacement occurred in the name of development, and only about 25% of these people are rehabilitated.[29]

The process of displacement to modernize, urbanize, and industrialize is not novel phenomena. Nonetheless, in the last few years, there is a growing reaction and resistance from the people to involuntary relocation and resettlement. In Bhatta-Parsaul, Uttar Pradesh State, Jaiprakash Associate Company has acquired 6000 acres of land to build luxury township facilities and 103 miles Yamuna Expressway. A total of 1225 villages will be displaced for the Expressway.[30] The government resorts to the police force to control and intimidate the genuine protests of the villagers.

India is one of the largest dam-building nations in the world. There are 4291 dams

25. Wikipedia contributors, "Development-induced displacement," *Wikipedia, The* Free Encyclopedia, https://en.wikipedia.org/w/index.php?title=Development-induced_displacement&oldid=965769395 (accessed October 11, 2020).

26. Wikipedia contributors, "Development-induced displacement."

27. Sudesh Kumar, and Anindya J. Mishra. "Development-Induced Displacement in India: An Indigenous Perspective." Journal of Management and Public Policy 10, no. 1 (December 2018): 25–36. https://doi.org/10.5958/0976-0148.2018.00008.2, 25.

28. Kalim Siddiqui "Development and displacement in India: reforming the economy towards sustainability." In *Journal of Physics: Conference Series*, vol. 364, no. 1. IOP Publishing, 2012, 1.

29. Kumar and Mishra, "Development-Induced Displacement in India," 26.

30. Siddiqui, "Development and displacement in India," 2.

in India. There are 4291 dams in India.[31] According to the World Bank report, dams cause the most massive displacement. Dams displace nearly 66% population, and it submerges vast areas of agricultural lands. The Narmada Valley dam project in India is the second-largest in the world. The project will cause the displacement of more than 200,000 people and eliminate the rich ecological resources in the Narmada Valley, one of India's most fertile land.[32] Nevertheless, the government goes ahead with the implementation of such developmental projects.

Theological and Pedagogical Reflection

The problem of displacement and its terrible fallouts must be analysed from the point of view of justice. Can a Christian be a silent spectator when injustice thrives? Can a Christian be happy with the external calm when there is an underlying storm caused due to displacement? A crime ignored is a crime encouraged. Every Christian living by the word of God is challenged to do what he or she can avert the ill effects of displacement. They are called to act justly to the displaced.

Justice is not an abstract principle, nor is it judgment, but rather a life-force. Justice seeks life for everyone. Because life is for everyone, justice pays particular attention to the people who are being denied life and then determines to meet those needs.[33] We are called to give a new lease of life to the displaced people in our societies.

Paulo Freire, in his revolutionary book, '*Pedagogy of the Oppressed*,' envisions a sublime process to empower the oppressed. According to him, as long as the oppressed remain unaware of the causes of their condition, they fatalistically "accept" their exploitation.[34] The internally displaced people in a country have the full rights of citizenship. No totalitarian forms of government can rob them of their land, dignity and freedom.

The Bible is very vocal about the idea of justice. The Hebrew word for "justice," *mishpat, occurs in its various forms more than 200 times in the Hebrew Old Testament.*[35] The different books of the Bible, in no uncertain terms, point out that justice will be rewarded, and injustice will be condemned. God is presented as God, who is just. God, who is just, wants his creation to live by the principle of justice. "Justice, justice alone shall you pursue, so that you may live and possess the land the LORD, your God, is giving you" (Deuteronomy 16:20). "To do what is right and just is more acceptable to the Lord than sacrifice." (Proverbs 21:3).

31. Kumar and Mishra, "Development-Induced Displacement in India," 31.

32. Balakrishnan Rajagopal. "The Violence of Development." The Washington Post. WP Company, August 9, 2001. https://www.washingtonpost.com/archive/opinions/2001/08/09/the-violence-of-development/1b169574-3992-44ec-bff9-a1e42857f192/, para. 8.

33. Rachelle Green, "Justice, Theology, and the Church," Education for Peace and Justice (Module 7 reflection, Fordham University, Bronx, NY, Summer 2020), 3.

34. Paulo Freire. "Pedagogy of the oppressed, 30th anniversary edition (M. Ramos, Trans.)." Continuum, London, New York 2000 (1967), 64.

35   Tim Keller, "What Is Biblical Justice?" RELEVANT, June 7, 2017. https://www.relevantmagazine.com/faith/what-biblical-justice/.

"Open your mouth in behalf of the mute, and for the rights of the destitute; Open your mouth, judge justly, defend the needy and the poor!" (Proverbs 31:8-9).

The thinkers, and social reformers, have harped at length on the idea of justice as a brave stand, a conscious decision all are called to take. "If you are neutral in situations of injustice, you have chosen the side of the oppressor. If an elephant has its foot on the tail of a mouse and you say that you are neutral, the mouse will not appreciate your neutrality,"[36] says Bishop Desmond Tutu, who is a well-known champion of social justice.

The last 100 odd years have witnessed world wars, genocides, attempts at ethnic cleansing, civil conflicts, and the like, which has led to massive scale displacement of innocent people. Looking at the displacement issue from a theological perspective, we see that displacement is the entire story of humanity.

The book of Genesis speaks about the displacement humans invited upon themselves by breaking the law. Sin displaced our first parents from their home. In the case of Adam and Eve, it was their sins that displaced them. In the current world context, the displaced are more often the victims of others' sins rather than themselves. They are victims of collateral damage.

Starting from the Old Testament, we have enough and more examples in the Scripture to cite instances of the pain and agony of displacement. Abraham, who is considered as the father figure of Israelites, was a nomad. The whole narrative about the great flood and Noah and family being saved in the arc has a tinge of the pain of displacement. The narrative of Abraham has a subplot of another severe displacement presented through the lives of Haggar and Ishmael.

The story of Joseph being trafficked, being sold as a slave in Egypt, being imprisoned, and unjustly treated can easily be understood better in the context of the slave trade, human trafficking, etc. of the present era displacement related woes. The lives of Israelites subjugated and suppressed in a foreign land, Egypt, the unjust laws made to contain their population, the wandering of Moses and the Israelites in the desert, and the Israelites' effort to get back their promised have its present-day parallels in different parts of the world.

The Old Testament presents characters such as Ruth, who battles poverty in a foreign land, something similar to today's migrants' plight. The Old Testament speaks of David on the run because Saul wants to kill him. Prophet Elijah is seen fleeing from his own country to escape oppressive and autocratic regimes. The Babylonian exile is a typical episode in the Old Testament presenting the sufferings caused by displacement.

Coming to the New Testament, Joseph and Mary, the parents of Jesus, have to enrol their names as part of a census by the emperor. The identity proof related issues faced by the displaced of today is very similar to what Joseph and Mary faced. Joseph and Mary

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36   Desmond Tutu Quotes. BrainyQuote.com, BrainyMedia Inc, 2020. https://www.brainyquote.com/quotes/desmond_ tutu_106145, accessed October 18, 2020.

desperately required a shelter in Bethlehem. But they could not get one. With the infant child, they had to flee to Egypt to ensure the safety of the child. They lived in Egypt as displaced people until they could safely come back to their hometown.

The whole faith dogma of the incarnation of Jesus can be understood as a wilful displacement from heaven and experiencing the pains of the displaced pains on earth. "He emptied himself, taking the form of a slave" (Phil. 2:7). He summarized the plight of the displaced when he said, "Foxes have dens and birds of the sky have nests, but the Son of Man has nowhere to rest his head" (Mt. 8: 20). His prayer in agony on the cross, "My God, my God, why have you forsaken me?" (Mt. 27: 46) is a prayer of every displaced person throughout history.

The theme of displacement continues in the history of the early Church. The severe religious persecution faced by Christians for nearly three centuries left them scattered and displaced. Especially in its initial centuries, the Church went through severe insecurity and vulnerability, sentiments most common to the displaced all the time.

The biblical framework for anchoring the 'theology of displacement' may be done using a key passage from the Old Testament. After the deliverance of the Israelites from their slavery in Egypt, God gives them laws to govern their lives. Although there are over 600 regulations, one command stands out because it is repeated.[37] God instructs, "When an alien resides with you in your land, do not mistreat such a one. You shall treat the alien who resides with you no differently than the natives born among you; you shall love the alien as yourself; for you too were once aliens in the land of Egypt" (Leviticus 19:33-34). There are three reasons why God considered this command about displaced people to be so important: the Israelites' history as displaced people, the fact that refugees were a common occurrence, and the gracious deliverance that the Israelites had experienced.[38]

Constructive Proposal

Dissimilar to refugees, internally displaced people do not have a distinct status in international law with rights particular to their situation. The phrase "internally displaced person" is merely descriptive.[39] The educators for peace and justice must understand the gravity of this global problem. The heart of education is the education of the heart.

Educational leaders must come out with creative ways and means to groom a generation aware of the pain of displacement. Cultivating a sense of justice and a soft corner for the marginalized helps a person be a better citizen. As a servant leader, I intend to initiate the following programs to alleviate the hazards caused by displacement.

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37 Tabitha McDuffee, "A Brief Theology of Displacement," Tabitha McDuffee (Tabitha McDuffee, May 5, 2017), https://www.tabithamcduffee.com/blog/brief-theology-of-displacement, para. 1.

38 Tabitha McDuffee, para. 3.

39 "Internal Displacement," IDMC, 1.

Impact study: There are several instances in India where the government forcefully takes over indigenous people's land for developmental projects. The government pays them a nominal price and sells them over to corporate agencies at an exorbitant price. Such projects are executed in an arbitrary manner causing large-scale displacement of people. I will facilitate an impact study by the students of social work around my academic institution. Sociologists and social workers would be employed to prepare questionnaires, survey among the displaced, and evaluate the impact study. The experience will help the students to understand the painful ground realities resulting from displacement.

Reach out programs: Conducting Field trips for students to areas where the displaced live will help them gain first-hand information about these people's plight. Some people are displaced due to natural calamities, while others are displaced because of the government's developmental initiatives. There are also people displaced because of religious and ethnic conflicts. The students will champion the displaced if we facilitate a visit to the ghettos where the displaced live and interact with the victims of displacement.

Photo exhibitions: Displacement is a global problem. A picture is more powerful than a thousand words. I will organize photo exhibitions for students where the theme of displacement is powerfully portrayed. The students can search through different sources and come with photographs and explain displacement and its consequences in any part of the world. The process of searching for the most impactful picture and listening to the explanation from companions regarding several similar pictures will certainly build up stronger conviction in students' minds against unjust displacement.

Literary and cultural activities: Literary competitions such as essay writing, poem construction, short story writing, cartooning, drawing, painting, collage, poster making can be used to create awareness in the minds of the young about the evil effects of displacement. India is a country with several folk dances and art forms, which students can use to convey the dangerous impacts of displacement. Theatre forms such as Street play, mime, and the like can be used to make the anti-displacement message reach the public.

Fundraising programs: To facilitate the students to nurture a soft corner for the victims of displacement, I will organize charity programs and fundraising events, planned and executed by the staff and students. The money, food, and clothes collected through such drives will be used to alleviate the sufferings of the victims of displacement. The aim is to drive the students to be more humane and caring for the plight of the displaced.

Preparation of a documentary film on displacement: The students are very much interested in visual media. They come out with visual productions from time to time. Taking advantage of this passion of students, I will make them come up with a documentary on a displaced group's plight. The production process will involve research, discussion, location visit, live-in experiences, screening of the documentary, discussion, and follow-up actions.

Panel Discussions: The school will organize panel discussions to help the students get the right perspectives on development. The experts' panel will include displacement victims, promoters of sustainable development, policymakers, and the like. The students will be allowed to interact with such panels and pose questions.

Film festival on displacement: There are several films and documentaries in different languages poignantly depicting displacement. Screening of such movies and documentaries accompanied by discussion will raise awareness among students about the dangerous fallouts of displacement.

The aim of an educational institution is to prepare a person for life. As an educational leader, I feel that imparting lessons on displacement and its consequences is an essential lesson that students must carry forward from their school life to their adult life and forward as responsible citizens.

Conclusion

The hardships of the internally displaced people are contemporary realities in most countries. The Vatican's migrant and refugee office released a booklet, "Pastoral Orientations on Internally Displaced People," on May 5, 2020.[40] The booklet provides guidance on how the Church might respond to the problems of IDPs, with particular reference to the spiritual care of those people.

The woes of the internally displaced people have only worsened in the present pandemic-ridden world. Covid-19 has disrupted their lives in unparalleled ways. Uncertainty looms over their lives. As educational/church leaders, we need to bring hope to this seemingly hopeless world. We must ensure that physical distancing does not lead to mental distancing. We need the counsel of the Holy Spirit and the Light of Christ to be messengers of peace and justice in the world of today.

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WOMEN EMPOWERMENT AND GENDER EQUALITY

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The autonomy and empowerment of women and the improvement of their social, political, economic, educational, and healthcare challenges is a highly important end in itself. There has been a huge leap towards women's empowerment since 2000, especially in Kerala. The Women's Reservation Bill, a legislation that reserves one-third (33%) of the total number of seats to women in the directly elected Lok Sabha and State Legislative Assemblies, has been passed into law in the country. This landmark enactment that ensures female political representation is a significant stride toward advancing gender equality in India. Regardless of the reservation policy, Kerala, the most literate state in the country, has witnessed extraordinary growth and advancement of women in several fields. If we take a look at the education sector, it is evident that the proportion of female students enrolled in higher educational institutions is very high. More than 60% of undergraduate students and more than 70% of post-graduate students in higher education are women. It is commendable that the female students got enrolled and pursued higher education not because they are part of any reservation system, but because they excelled in their eligibility criteria.

The 17 Sustainable Development Goals (SDG), adopted by all United Nations Member States in 2015 and to be achieved by the year 2030, are the blueprint for a better and more sustainable future for all. One of the most important Global Goals of the 2030 Agenda is quality education. It aims at ensuring inclusive and equitable quality education and promotes lifelong learning opportunities for all. In short, the basic objective of the United Nations is to "transform lives through education leaving no one behind." Following this, our state is at the forefront of achieving the practical goal of the RTE Act (Right to Education Act, 2009), which makes primary education universal. The act enacted in 2009 aims towards providing free and compulsory elementary education to all children between the ages of 6 and 14, which would ensure the all-round development of every child. According to the 2011 census, Kerala ranks first in educational progress in the country with a literacy rate of 93.91%. There was a marked increase from 90.86% achieved in 2001 to 93.91% in 2011. Kerala thus became the first Indian state to achieve 100% primary education in the country

The Importance of Employment

It is unfortunate that in today's world professionalism is taking a back seat in the life cycle of women after education. It needs to be examined with forethought why women are restricted to prioritizing family and domestic life to be the main sphere of their activity. Despite female students excelling in higher education, a large number of women withdraw from the

workforce and career prospects. The ever-declining female labour force participation is one of the major constraints facing our country's growing economy. Often, they get married right out of college, get busy with providing care and support for the husband and his family, and engage themselves in the nurturance and development of children. While settling into the cultural role of domesticity, getting employed and being financially independent will just be a distant dream for them. There are only quite a few extraordinarily gifted women who break down barriers of domestication and overcome challenges and limitations. It is because there are a lot of women around us with the highest academic qualifications and digital literacy who are confined to being just ideal domestic caregivers. Ironically, even the most literate state of Kerala has a large number of women who hold the keys to kitchen and household management, despite their academic excellence and the high job prospects that come with it. A small minority may find contentment in the process of homemaking and nurturing. However, a large section of women regret being unemployed later in life when they reach the age of thirty-five or forty. It is not easy to seek employment later in life considering Kerala's present situation.

As per the employment survey conducted by the National Sample Survey Organization (NSSO) in Kerala, 74% of men between the ages of 15 and 59 are employed, while only 30% of women in the same age group are employed. In Kerala, where unemployment is a serious social and economic issue, the unemployment rate among women is 55% (23% among men). While 78% of men are either employed or looking for work, only 35% of qualified and competent women are either employed or in the process of job-hunting. It is a dire social concern that requires immediate action.

Employment Discrimination

Employment discrimination in the workplace is a serious problem that can often be deleterious to individuals and groups of employees. Gender discrimination in the workplace occurs when an employee is treated differently or unfairly based on their gender. Not only has there been no significant increase in the workforce participation rate of women, but also women are either employed in unskilled jobs or more women are being employed in low-wage labour. Although the gender wage gap is narrowing, the gender pay gap still exists in agricultural and non-agricultural sectors. With the advent of new sectors like IT and the pace of privatization, female employment has increased. In the unorganized sector, challenges such as low wages, long working hours, erosion of labour rights, lack of labour laws, and the doctrine of the reserve army of labour in which workers are dismissed, recalled and recruited at will, continue to impact women. Gender discriminatory practices in the workplace negatively affect women's development and progression and serve as barriers to upward mobility.

Change is Inevitable

Devising schemes to mainstream women's employment is the only remedy to tackle workplace discrimination and unfair treatment. There should be changes in the conventional order of

society to ensure women's social participation in general and in utilising the involvement and potential of housewives in particular, in the development process.

A study conducted by KILA (Kerala Institute of Local Administration) and Sakhi, a non-governmental, not-for-profit organisation, found that women have less than 10 percent land ownership rights. Women should have the right to equality in the enjoyment of all their rights, particularly full and equal access to economic resources. Perhaps it is poetic justice today that women should naturally have full rights over land and property. Ownership of property and assets naturally brings women into the mainstream of society. When women have employment and access to resources such as land like men, it empowers women providing them income and security. Thus, women become less dependent on men and their economic status naturally rises in society.

Likewise, women need to be prepared to involve themselves in appealing and rewarding career options in society. As soon as they complete their studies, women must aim for high-quality jobs through competitive exams. Women's engagement in lucrative careers will make them stand tall in society and, in turn, will lead to gender mainstreaming. Thus, gender equality and empowerment will become a reality through their representation in the most respected professions in society.

Gender Equality

Gender neutrality has been widely affirmed as a guiding principle in promoting gender equality and in avoiding gender discrimination. It has been a prominent topic of discussion for some time now. Beyond discussions and debates, the practicality of adopting gender-neutral practices is still a concern. The reverberations of the discussions regarding the uniform reform of the Government Girls Higher Secondary School in Balussery, Kozhikode, continue in our society. Following this, another controversy sparked at the bus stop near the College of Engineering Thiruvananthapuram (CET) when some miscreants cut short the long steel bench to apparently moral police the youngsters and stop the male and female students from sitting together. The gender neutrality debate took a social dimension in the aftermath of moral policing. The subsequent discussions turned out to be dynamic and lively on social media when opinions related to politics, religion, and tradition came to the forefront. The Kerala State Child Rights Commission recommends that there should only be co-educational institutions in the state from the 2023-24 academic year to boost gender equality among the students and lend a hand to make gender-neutral practices more practical and experiential.

The name of the school that grabbed the headlines for its gender-neutral uniforms, Government Girls Higher Secondary School in Balussery, had 'Girls' in the title. The paradox of gender-neutral thinking is evident here as we need to specify gender to talk about gender neutrality. In short, our deliberations have to move beyond the rhetoric of words to the practicality of things. Gender neutrality cannot be achieved by boys wearing girls' clothes or girls wearing boys' clothes. While challenges exist, gender-neutral practices can become increasingly

practical only through public awareness and advocacy, policies and legislation, inclusive workplace practices, and by challenging social norms and gender roles.

Constitutional Provision for Gender Equality

Indian Constitution ensures equality for all, giving equal rights to men and women. Our Constitution explicitly guarantees equality as a legal provision in various articles. Along with general provisions to eliminate discrimination between men and women, many specific provisions have also been included in the Constitution of India. Article 14 of the Constitution of India guarantees equality before the law or the equal protection of the laws to every citizen of India. Thus, the Constitution mandates equal rights for both men and women. Article - 15 (3) states that the Government may enact special legislation for the welfare of women and children. Equality before the law, as stated in Article 14, is available to all individuals only within the framework of substantive equality. This means that a specific provision is in place to address the historical and social disparities experienced by women in conjunction with men. The special provision aims to neutralize the cumulative social, economic, educational and political disadvantages experienced by women in the past. Even though the Constitution of India recognises the right to equality as one of the fundamental rights of both men and women, gender justice remains an elusive goal in our society. There is a provision in the Constitution of India to assess the conditions of our country and the state in particular and allows the state to frame special legislation and programs to achieve substantive gender justice.

Change Starts at Home

Children must learn the primary lessons of gender neutrality from their families. Change will inevitably occur over time even if the most traditional families may balk at this. We can witness discriminatory practices right from home, from cleaning the dishes to washing the clothes we wear. The social roles that you expect from girl children at home are to serve food or help mothers in household chores while the boys take the lead in traditionally masculine household chores like car upkeep and yard work. It is indeed essential that parents teach each of their children every chore of the household regardless of their gender. Cooking, cleaning and other domestic chores are not gender-specific but essential life skills. It should be taught to all children irrespective of their being girls or boys. A mother who gives a 10-year-old girl a broom to sweep the yard may exclude her son from doing the same chore. A mother instructs her daughter to wash the clothes she is wearing but wash and iron her son's clothes herself. At home, girls are restricted from crossing their legs and are advised to sit in a 'ladylike' manner. They are not allowed to sit on the threshold of a doorway, talk or laugh loudly while boys neither face societal restrictions nor get subjected to judgments and criticisms. To achieve gender justice, families should impart the conviction that girls can do anything boys can do. A gender-neutral familial environment is the need of the hour to tackle gender stereotyping and societal expectations. Change must start at home and parents ought to become the agents of validation to adopt a gender-neutral familial environment. Gender-neutral parenting will

encourage children to explore the world and express themselves in ways that are not defined by traditional gender roles and expectations. Parents must encourage their children to explore their own unique abilities, interests, and identities without imposing gender-based limits.

"Men are from Mars, Women are from Venus." The debate over how and why men and women are different has been going on since the dawn of mankind and continues to divide opinions even today. There are discernible biological and physiological differences between males and females. Since gender norms are formed and enforced right from the birth of a child, the need to mobilize communities to reflect on and reconsider customary practices that discriminate between males and females is a dire necessity. This gender discrimination begins in families, then later extends to schools and workplaces, and naturally into society. The widespread and normalised gender bias, embedded in social institutions – laws, social norms and practices, makes the vision of gender equality extremely unpleasant. The dos and don'ts dictated by society are generalized to the extent that the norms are holding girls and women back in every part of their lives. The attempts made by the sexist society to convince girls that their minds are weak are to be condemned vehemently. There must be attempts and actionable steps towards empowering girls and women and it must begin within the families.

Education plays a pivotal role in promoting gender equality. It is a powerful tool that can help break down gender stereotypes and empower girls and women. Gender neutrality must become a cornerstone for the modern educational system and it must be encouraged in schools. The attendance register in schools itself is a blatant violation of gender equality. The male and female segregation in the attendance book reflects the male domination of society. Why is there so much reluctance to enter names in alphabetical order or admission number order, without any preference? A change to this trend is imperative in our education system the encourage gender neutrality. If our schools can put aside the distinction between boys and girls, allow students to sit together and study irrespective of their gender, and plan a gender-neutral curriculum together, then we can proudly say that the foundation for gender neutrality has been laid. A gender-neutral educational system will instil gender sensitivity, inclusivity, social consciousness and a sense of security and ensure that all students are treated fairly and with respect. Alongside this, it is essential to officially incorporate the perspective of gender neutrality into the formal curriculum in schools and colleges.

Society Needs Change

The notion of gender equality must not be celebrated or encouraged perfunctorily. A proactive approach to bring social transformation and advancement towards the better is the ultimate aim. As a result, change must not be limited to official public policies, conspicuous announcements in textbooks and curriculum in schools and colleges or outspoken advocacy in legislative assemblies. It should not be limited to gender equality seminars, conferences, workshops, or slogans and activities in a public meeting. It must extend to the practices of everyday life, in our homes, in schools, in our interactions with one another, and all aspects of our society. Gender equality becomes a reality only when you can make everyday choices

without any restrictions such as having the freedom to wear the preferred clothing or sit together with your friends in the classroom regardless of their gender. This disparity was apparent when female college teachers in our country demanded a circular from the Minister of Higher Education that barred college management from imposing dress codes on teachers of higher educational institutions. The circular supports college teachers' right to dress as they prefer, like their male counterparts. Therefore, the importance of gender equality must be communicated to our children at an early age, with a high degree of sensitivity. It must start with family, schools and society. In addition to the propagation of the ideals of equality in schools, institutions, and public recreational spaces, the principles of gender neutrality should also be promoted. Not only mental preparation and training must be provided to eradicate discrimination and marginalization, but also obstructing factors that hinder progress should be consciously identified and eliminated. It is essential that individuals as well as institutions, acknowledge and appreciate equality and gender neutrality in their thoughts, dreams, and practical behaviour. We must treat men and women equally and acknowledge their unique qualities and energies with the same respect. We, who are so vocal about men and masculinity, must speak with the same vigour about women and feminine energy.

In this era of gender revolution, change is inevitable. The springtime of goodness and freedom should be made available not only to our boys but also to our girls. All it takes is willpower and determination. Let them also learn the lessons of equality and neutrality.

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