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Sustainability and Livelihood vulnerability of Rural People under the first wave of COVID-19 in India: A comprehensive review

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Abstract: ***COVID 19 has totally changed the way of life on Earth. India has been one of the worst affected nations in terms of infection also while harbouring a big chunk of population in the rural areas. It was imperative rural livelihood associated economic sustainability was to be severely affected but the exact extent of the disaster is yet to be known. As things are getting back to life in the new normal, researches regarding the same is under way, but it will be quite a few months or even years before the true picture can be ascertained and according mitigation strategies are adopted. Concrete data is still unavailable, even to some extent in the Government level. This review aims to understand how the pandemic played out on Rural Livelihood with the limited data available on the open platforms like social media and news media. It is tried to collect and comprehensively present the impeccable research work and efforts put in by the grassroot social workers and numerous journalists to collect news and information straight from the battleground, putting their lives to great risk in times of the pandemic.***
Keywords: Rural Livelihood; Vulnerability; COVID 19; MNREGA; Marginalisation

I. INTRODUCTION

The world is facing a pandemic of immense devastation, as of the scale of COVID 19,after almost 100 years, with the last one being the Spanish flue back in 1918-1920, caused by the H1N1 virus of avian origin which killed almost 50 million people worldwide, constituting almost one-third of the world's population at that point of time.[1].As of 29th October 2020, the death toll of COVID 19 globally had been 1,179,239 with total number of infections being 44,775,984 and 32,728,561 recovered. For India, death toll had been 120,563 of 8,040,203 total infections[2]. To combat the spread of virus, the entire nation went into total lockdown from 25th March 2020 to 8th June,2020 with services being phased back to normalcy, before the second wave struck in April 2021[3]. The lockdown induced by COVID 19, brought severe consequences on the Indian Economy (Mukherjee et al., 2020) with the GDP declining by almost 25% in the second quarter and along with an expectation to shrink by a total of almost 9.6% during the fiscal year which commenced from March 2020 [5]. Therefore, it is intended to understand how this economic slump has affected the rural livelihood and development sector. It is still very early days but this article would focus on the sector from the perspective of different determinants of livelihood, the gender bias and what role the different programmes and policies of the government will play keeping in mind the recession of 2008.[6] (IIT Kanpur, 2011).

II. COVID-19 IN INDIA

The first case of COVID 19 in India was detected on 30th January 2020 in Thissur, Kerala and it took 74 days to reach the first 10,000 COVID 19 cases [8]. The current doubling time of the disease has seen a sharp rise to 70.4 days according to Ministry of Health as of 14th October 2020 [9]. The fatality rate has also decreased [10] as the country awaits the elusive vaccine [11]. Seven main competitors are running the race for the vaccine in India [12], where there has been serious concerns regarding the vaccine prepared by the team of scientists in Oxford [13] as volunteers have shown to develop symptoms similar to that of Transverse Myelitis[14] when the vaccine was administered. However, final diagnosis was yet to be made on part of the independent review committee[15]. Researches ever since has highlighted its potentiality for causing catastrophe[16], but the vaccine was granted permission for emergency administration and has been one of the key players in the vaccination drive in India till date.

Similarly, production of the vaccine by another pharmaceuticals major was halted over the case of unexplained illness in a volunteer.[17]. Initially it was being hoped COVID 19 could be stopped from spreading like wildfire in Rural India, keeping in mind the health infrastructure [18]. However, latest opinions are that there might have been a spike with shifting focus from Urban to Rural areas as the percent of total cases increased to 24% in rural district and 43% in mostly rural districts (Fig.-1) during the latter stages of the first wave. [19].

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Still, it is of the opinion, not to stagnate the economy further based on these numbers because a larger population than the official data is suspected of being affected by COVID 19 without symptoms and this hypothesis received partial validation out of the results of Sero Survey conducted in Dharavi [20] and other parts of the country[21]. Extensive testing could have been a better strategy at better management of the pandemic and safeguarding the already stumbling economy.

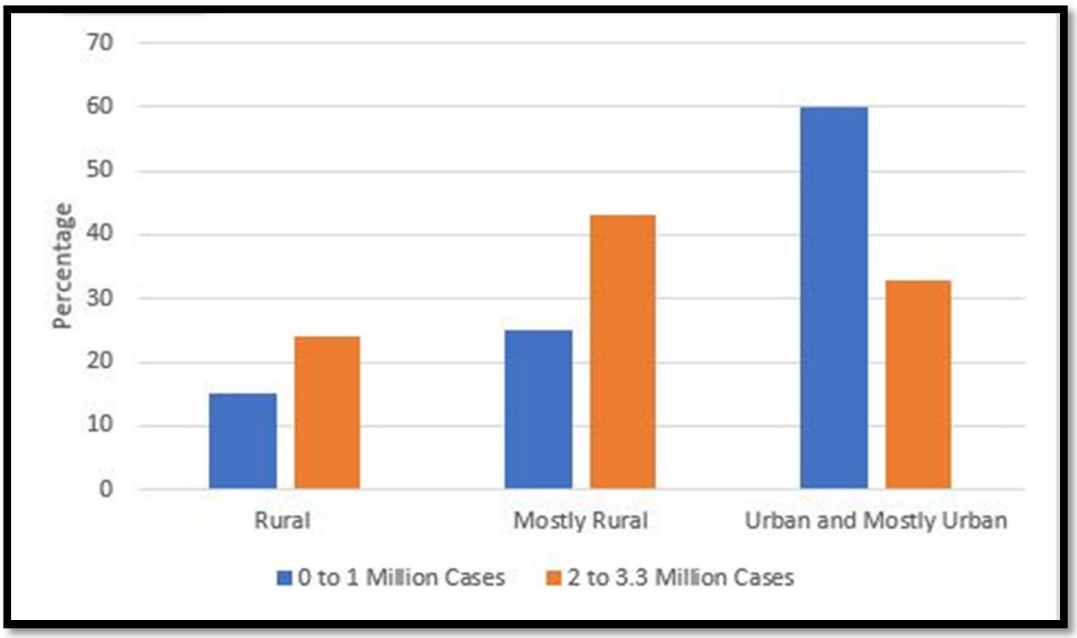


Figure 1: Spatial distribution of COVID cases in India

III. CONDITION OF TRADITIONAL RURAL LIVELIHOOD: AGRICULTURE

The scenario in agricultural sector in COVID was quite interesting. Due to record food-crop production, the agricultural sector contributed to almost 15.2% of the total economic growth of 2019, which culminated into a meagre growth of 4.7%. In the first three months of the fiscal year 2020-21, when the entire economy suffered a projected 8.45 lakh overall loss, gross value in the agriculture sector increased by 3.4% equivalent to 14,815 crore in the first quarter.[22] [23]. The trend of GDP from agriculture since July 2017 to July 2020 in **Fig 2** reveals that the agriculture sector has miraculously been able to sustain the shock due to COVID 19 [24]. As the trend follows, the third quarter historically have yielded most value with the second quarter being the least in the times before COVID 19 In the first quarter, when COVID 19 was developing slowly into a pandemic, that is the final quarter of 2019-20, the agriculture sector produced a maximum of 5606.26 crore when compared to the previous two years of 5011.9 and 4902.38 respectively. However, we might experience significantly opposite picture in 2020 owing to a huge reverse-migration [25] enabled by urban job losses during lockdown. Effect of this migration will be discussed separately. With uncertainty still looming over the unorganised urban job sector, a huge chunk of migratory population will be concentrated in the rural areas and out of choice or force will resort to agriculture as means of livelihood. Though apparently it is deemed to be a positive, if the other sectors of the economy do not turn around sooner, a crash of demand may start a serious domino effect affecting the agriculture sector massively in due course of time.

This may be explained further with the type of crops being cultivated, over spatial and time distribution. When lockdown was imposed in March, the Rabi crops were ready to be harvested, but, in spite of there being slight un notified relaxation in the first lockdown and notified relaxation in the subsequent phases , huge losses were incurred due to unavailability of labours, machinery and transportations especially in farming of perishable commodities of fruits, vegetables and flowers [26].

Before the lockdown, according to the data from Food Corporation of India had 30 million tonnes of wheat and 27 million tonnes of rice against the required 3 million tonnes and 2 million tonnes respectively. This spelled danger as there would have been limited scope of procurement of primary food crops from the farmers and with industries also in a shutdown, crops grown especially for FMCG production units awaited spoilage.[27]

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However decisions from Central Government as well as different state governments, of providing free ration to the public and the ability of PDS beneficiaries to lift ration for 6 months in one go during the pandemic[28] somewhat eased the pressure. On the contrary, inability to process the harvest of perishable product like onions was destined to the inability of meeting market demand creating a mayhem both internally as well as international sectors are concerned. The effects are coming to the forefront almost 8-9 months from the first lockdown in March, where export of onions to Bangladesh had to be stopped [29] in September and the price almost on the brink of reaching Rs 80/Kg in different parts of country in November 2020[30]. Untimely rainfall in different states affected kharif and late-kharif production of onions. Apart from that catastrophic super-cyclone Amphan [31] wreaked havoc in the State of West Bengal terribly affecting rice cultivation [32] and vegetables [33].

Still the government was targeting at record production of rice in 2020-21 [27] but the impact of COVID 19 on agriculture might be lasting longer than initially expected especially after the parliament passed *The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020* and *The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020* [34] . An excess of human workforce is reeling under fragile financial condition and policy related uncertainty combined with a turbulent market with selective demands, which is urging us to forecast a hostile period for the agricultural economy.

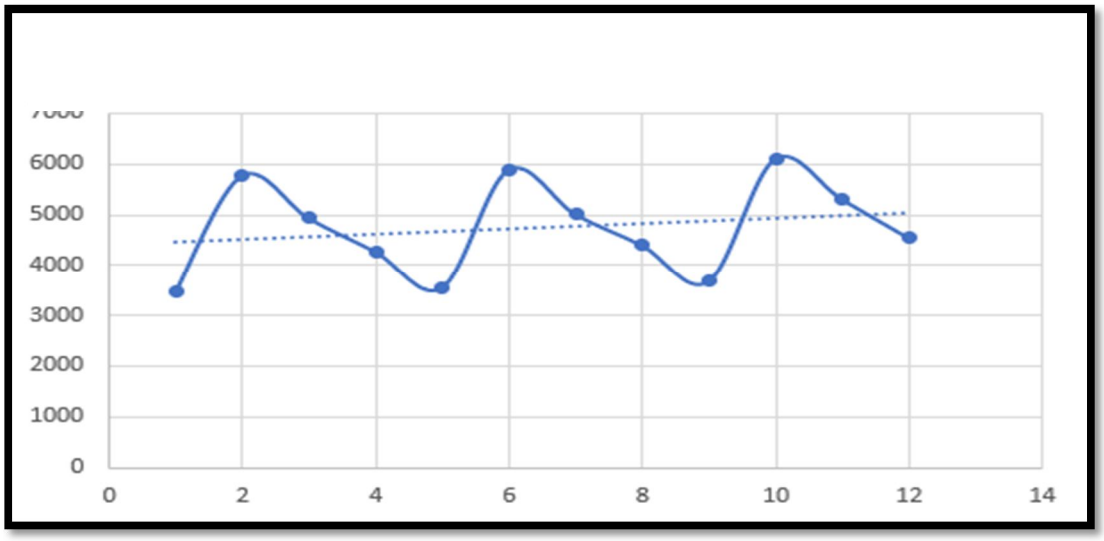


Figure 2: Trend of Agricultural Economy of 12 quarters starting April 2017 in crores

IV. IMPACT ON AGRICULTURE ASSOCIATED LIVELIHOOD- POULTRY AND DAIRY FARMING AND FISHERY

In the early days of COVID 19 Pandemic, there was widespread fear arising out of misinformation or no-information of what the novel coronavirus can spread through, which was tried to be leveraged by various social, political and religious agendas[35], [36]. This trend took a heavy toll on the Poultry and Fishery industry. If social media posts and forwards played the major role in creating the crisis, it was tried to be countered by the government and leading media houses(Manoj, 2020; Niranjankumar, 2020; The Economic Times, 2020). However, the lack of widespread education, awareness and tendency of people to indulge in a false bubble of safety appeared to be a significant stumbling block.

Even before the lockdown, the poultry industry suffered a massive loss of about INR 22,500 crores owing to the broken supply chain following serious fall in demand, which saw the retail price of chicken fall to a staggering low of around Rs 60- Rs 150 from the national average of Rs 180- Rs 220 before the outbreak [40]. Egg prices fell to an all-time low of Rs 1.95/egg with private contract farms refusing to lift produce, resulting in rotting of the raw produce [26]. The poultry industry has always taken the brunt of the outcome arising out of any disease, irrespective of the fact whether they had its origin in the chicken. During COVID 19, the states that were worst affected with perspective to the poultry industry are West Bengal, Tamil Nadu and Maharashtra [41], [42].

Marine products which constitute the most important agricultural product exported, accounting to about $ 6.7 Billion, was severely hit along with the entire fisheries sector with the size of loss being almost Rs 224 crore per day as of April 2020 [43]. The livelihood of almost 16 million fishermen was turned upside down, where 60 deep-sea shrimp vessels had to discard the entire catch of 30-40 days, as harbours were closed due to lockdown. However, there was a ray of hope as the State Government of Kerala started acquiring the fishes instead of discarding, to feed millions in the state through the community kitchen they had established [44] .

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The livelihood of women, who were totally dependent on the fisheries sector is yet to be determined by numbers but it can be said with conviction, if stringent measures are not adopted at the earliest, worse days are awaiting the fishing community.

Dairy products like paneer ice-cream, curd etc account for almost one-third of the revenue of the dairy sector, and the net revenue is expected to decrease by almost 2-3% in the fiscal year 2020-2021 due to weak sale of products[45]. Demand in the Rs 100,000 crore industry faced a dip in demand of almost 30%[46].Skimmed milk powder capacity in the nation ran for almost 80% to 95% compared to the average 30%-50% during milk flushing season of April to September, which saw a crash in SMP internally keeping pace with the crash in the global market[47]. To insulate the dairy farmers during the COVID 19 pandemic the dairy co-operatives in Gujarat, procured excess milk and converted into valued added products [48].

As the nation is getting adapted to the new normal, the industries are slowly trying to gain pace, but recovery has grossly been uneven [49]. Until and unless there is capital injection and appropriate management strategies are adapted from the level of administration and policy-making, the dismal state of these industries will continue for longer periods than expected, impacting thousands of more lives associated with them, with each passing day.

V. RURAL WOMEN AND SHGS DURING COVID 19

6,638,517 SHGs in India comprising of almost 72 million women, has championed to make a major mark in alleviating poverty in rural India. Before even considering the case of economy, the members of the SHGs deserve applause and salute from each and every citizen of the nation, because without them, the country's fight against COVID 19 wouldn't have taken shape, as we see it today, after almost 9 months, the first case was detected in India.

They played a major role in meeting the shortage of masks, sanitizers and protective equipment while even running community kitchens to feed millions of hungry stomachs [50], [51]. The process was decentralised, thereby negating complex logistics and transportation. According to data available in the open access through different social media platforms and validated by the World Bank in light of their $750 million investment in the National Rural Livelihood Mission, greater than 19 million masks, 100,000 litres of sanitizers and almost 50,000 litres of handwash [52], because of which the frontline COVID 19 warriors and common people in general owe them gratitude . Their efforts played a big role in combatting the crisis of these safety gears and equipment in the early weeks [53], [54].

As for the perspective of economy, during the 1.76lakh crore financial package announced by the Government of India, provision for collateral free loans for women run SHGs was doubled from 10 lakhs to 20 lakhs. It was estimated almost 63 lakh SHGs covering 7 crore families would be benefitted by the scheme and that it would provide the much needed stimulus for the already fragile rural economy, even in worse condition after the lockdown [55]. The Microfinance Institutes and concerned policies by the Government, along with the active participations of SHGs will play a major role in reviving the economy and empowerment of marginalised women in post COVID rural India, which is expected to involve increased digital communication and social distancing taboo in the new normal [56].

VI. MIGRATION IN COVID 19- A MAJOR DETERMINANT OF RURAL LIVELIHOOD

Education and Migration are two major determinants of rural livelihood [57] both of which has created headlines during the entire period of lockdown and beyond. In India, there are almost 4 crore migrant workers, most whom have paid hefty price of the unplanned lockdown imposed by the Government of India to tackle COVID 19[58]–[60]. An unprecedent situation faced the huge masses because on one hand they had no job, no food and on the other hand, they had to sustain themselves in a foreign place, simultaneously maintaining a family back home, with little or no money in hand. COVID affected India, in 2020, experienced one of the biggest migrations, or in true sense reverse-migration of labourers, producing one of the most horrific images since the partition of Indian subcontinent by the draconian Radcliffe Line (**Fig 3**).

As the migrant labours tried to reach back home on bare foot, which sometimes was in excess of a few thousand , the privileged segment of the Indian population, mostly concentrated in urban sectors, braced themselves to heart wrenching news of several accidents causing deaths and injuries and distress of the migrant labours [61], [62]. Though political tug of wars ended in arrangements of *"Shramik Special Trains"*, it brought about little respite to the thousands of workers as firstly they were asked to pay big ticket price for the railway journey [63], however some of the state governments like that of Bihar, West Bengal etc paid for trains to bring back migrant labourers of the state while several political figures claimed to have paid tickets for a number of workers travelling during the troubled times [64]. Unavailability of food or water onboard special trains and unexplained delays added to the agony of migrant workers [65], [66].

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Figure 3: A collage of migration in India in 1947 during partition and 2020 during COVID 19 pandemic

A few states, most notably Kerala did a stellar job in protecting the rights and dignity of migrant labourers by arranging for food in community canteens, shelter and medical facilities trying their best to insulate them from the COVID outbreak while also arranging for special trains for the workers who wished to go back to their native places [67], [68].

More than the pain, it was the ignorance and apathy of the upper class and the government alike, which severely damaged the morale of the migrant travellers. According to government data almost 75 lakh migrant labourers made the travel back [60] and many died and injured. However, the government declared in Parliament on 15th September, 2020 , that no data on how many migrant workers died while travelling back is not maintained and hence there does not arise any question of financial compensation for the same [69].

Hence there was a general reluctance of workers, although temporary, to migrate back to their work places which is evident from increase in planned land for Kharif agriculture and increased tractor sales in the succeeding months. A good monsoon also acted as a blessing for the ones who migrated back to their own villages[70].

However there was soon a counter trend of migrant workers to return to cities as their limited savings have predictably been exhausted trying to sustain the difficult times. [71]–[73].

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VII. THE MAKE OR BREAK- MNREGA

The Mahatma Gandhi National Rural Employment Guarantee Act 2005 commonly known as MNREGA played a major role in stabilizing rural livelihood and also helped the rural economy in India to weather the storm when the entire world battled a recession in 2008 [74], [75].

If the rural sector has to bounce back from the current slump, MNREGA has to play a critical role once again. In the Union Budget for 2020-21, Rs 61,500 crore less by almost 13.4% from the previous year [76]. Later, additional funds worth almost Rs 40,000 crore was allocated to the MNREGA scheme as a part of the economic revival stimulus of the Government of India [77].

The demand for work increased in May 2020, co-inciding with the labour migration which further increased by almost 21% in June 2020, amounting to almost 43.7 million households. There was a demand of increasing the minimum wage in MNREGA to Rs 600 and ensure jobs for 200 days, however the minimum wage continues to be Rs 200 , along with a guaranteed job for 100 days [78]. It is intriguing to find the number of households seeking work under the MNREGA scheme in the first 5 months of the fiscal year 2020-2021 i.e. April 2020-August 2020 is in itself almost 41.8% greater than the demand in the entirety of the fiscal year 2019-2020 [79].

Although the demand compared to previous years had been significantly higher, there had been a consistent decrease in demand in July 2020 and August 2020 in comparison to the previous two months, which has been counter validated by excess funds available in the rural sector. The trend followed into October,2020 [80], [81].This is indicative of the fact that either people had acquired jobs in farms or had started returning to cities for jobs.

VIII. CONCLUSION

As anticipated, the rural livelihood sector has received a major blow owing to the COVID 19 pandemic in 2020. The worst part is that the suffering has been from every dimension possible. Excessive pressure on the health infrastructure coupled with the aura of fear and taboo amongst the urban dwellers and the higher sections of socio-economic strata has been digging the grave for many small business and marginalised people throughout, mainly in rural sector. The general fragile health of the national economy is making it difficult for the revival of the rural sector. On the level of policy making, there needs to be more scope of contact and connection with academics, technologists and grassroot field workers, so that innovation and improvisation in every sphere can be directly applied in practicality rather than being limited to laboratories wrapped in heavy sheets of scepticism. But above all, for immediate boost, there needs to be liquid cash injection into the economy to increase expenditure, subsequently demand. Even though, the rural population somehow survived the primary scare, there is a long road ahead and over reliance on agriculture or agriculture subsidiaries may put nails to the coffins owing to the highly volatile nature of the market. This might lead to further unplanned exploitation of natural resources, which is significantly unsustainable keeping in mind the ever-increasing impacts of environmental degradation and climate change arising out of agricultural processes. Also, economically, majority of rural population indulging in agriculture or agricultural labour on shared land owned by bigger farmers may lead to extreme polarisation of financial resources and subsequently marginalisation. MNREGA may again turn out to be a key player either by including agriculture in its scope of jobs or promoting small entrepreneurship amongst skilled or semi-skilled workers have migrated back to their rural roots. Data based precision approach may open a new horizon in the road forward to tackle rural poverty which has been aggravated after the COVID 19 pandemic.

IX. CONFLICT OF INTEREST

The author declares no conflict of interest.

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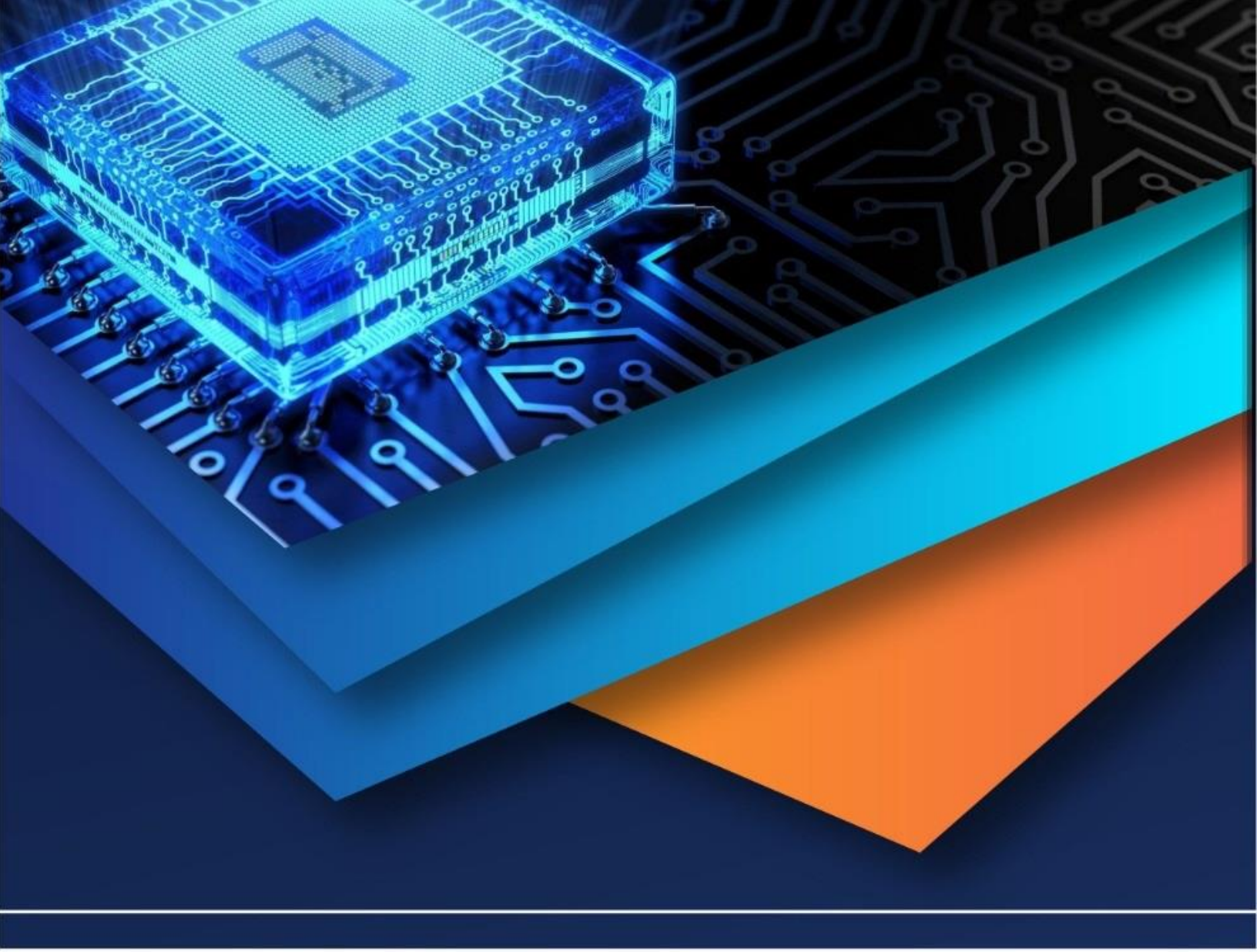
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