

Livelihood Challenges and Mitigation Strategies Adopted During COVID-19 Lockdown Period

ABSTRACT

Over the past century, apart from COVID-19, human civilization has seen five other significant pandemics such as the H1N1 outbreak in 2009, Ebola outbreak in West Africa in 2014, and subsequent outbreak in Congo in 2019, Zika outbreak in 2016, etc. However, of all these outbreaks, perhaps the COVID-19 pandemic is unparalleled due to the global proportions that it has assumed. The severity of the epidemic can be seen in terms of the number of lives lost and the multi-dimensional impact that COVID-19 has had upon the economies of nations and lives of people. Beyond the physical sphere of human life, COVID-19 has also impacted human life's social, mental, and economic aspects.

This study was conducted to understand the livelihood challenges faced by the residents of 5 villages in Mulshi taluka during the lockdown period. In-depth interviews were conducted with three respondents from each village (15 respondents). The study drew upon the insights given by key opinion leaders in the towns such as Sarpanch and elected members of the gram panchayat, ASHA workers, ration shop owners etc. Identify the livelihood challenges faced by the people during the lockdown imposed due to COVID-19. Describe the strategies adopted by the people to overcome the challenges to livelihood faced by the people. The residents of the village's studies faced various challenges related to agriculture such as lack of manpower to harvest produce, lack of transportation facilities to transport produce to markets, lack of storage facilities to store agricultural produce etc, loss of employment faced by daily wage laborers due to non-operational status of small businesses during the lockdown period and challenges due to reverse migration.

Keywords: COVID-19, Livelihood challenges, Strategies, Lockdown, India

INTRODUCTION

The WHO China country office was informed of pneumonia of unknown etiology on 31st December 2019, with the earliest cases detected in Wuhan city, Hubei province, China (World Health Organization, 2020). In India, the earliest case of COVID-19 infection was seen in a student who returned home from Wuhan University in China to Kerala on 30th January 2020. The government announced a complete lockdown on March 24th, 2020. To date (as of 27th June 2020) over 13 lakhs confirmed COVID-19 positive cases and 32063 confirmed cases of death [1].

As a response to contain the rapid spread of the disease, governments across the world announced a series of measures to contain the spread. The measures included complete lockdown of various locations, testing of individuals who display certain symptoms, tracing of individuals who came in contact with COVID-19 positive cases, and isolation of individuals who either came in contact with positive cases or are showing signs of infection [2].

Objectives

The objectives of the study can be listed as follows-

1. Identify the livelihood challenges faced by the people during the lockdown imposed due to COVID-19.
2. Describe the strategies adopted by the people to overcome the challenges to livelihood faced by the people

RESPONSES ADOPTED BY INDIAN GOVERNMENT TO COMBAT WITH COVID-19

The lockdown in India, which was announced on 24th March 2020, put over 1.3 billion individuals under a strict lockdown [3]. From a strategic perspective, this move aimed to curb the contact individuals would have with each other, thus reducing interpersonal contact rates by over 75% and enabling the health system to prepare for the probable onslaught of positive cases. However, this lockdown also resulted in a loss of livelihoods for many individuals, especially the migrant population, and other hardships. In India, over 50% of COVID-19 positive cases can be seen in Delhi and Mumbai cities. While most COVID-19 cases can be seen in urban areas in India, the villages across the nations have also borne the brunt of the pandemic [4]. Indian villages and villagers are facing multi-dimensional challenges such as loss of livelihoods due to the lockdown, the resultant loss of food security, migrant populations travelling back to the villages from various cities due to loss of food security, and loss of livelihoods, difficulty in accessing healthcare services, etc.

The Government of India, responding to the challenges faced by the economy and the nation's people, announced a plethora of schemes under the umbrella of 'Atmanirbhar Bharat' [5]. The economic package that was worth over 23 billion US Dollars aims to support the poor by providing them jobs under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), supply of food grains under PDS (Public Distribution System) [6], free gas cooking cylinders, etc., in addition to schemes to infuse monetary liquidity into the economic system and spur economic growth. This monetary stimulus package was in addition to the previous commitment announced by the Prime Minister to invest almost Rs. 150 billion to be devoted for the development of various healthcare facilities, including testing facilities for COVID-19, procurement of Personal Protective Equipment (PPE), Intensive Care Unit (ICU) beds, ventilators etc [7].

Additionally, various state governments also took up welfare measures and announced various welfare schemes and packages to support people and alleviate their distress. An excellent example of this is Kerala government announcing a financial package worth 2.7 billion USD that covers health packages, loan assistance, welfare pensions, free food grains etc. Furthermore, in a bid to ease various agricultural challenges, GoI exempted farming and related work from lockdown-related restrictions [8].

COVID-19 AND RURAL AREAS

The novel challenges due to the COVID-19 situation have highlighted the rich-poor and urban-rural dichotomies in Indian society. While the number of patients was the most in metropolitan cities, the lives of the rural poor have been affected most severely by the COVID-19 pandemic. The impact on people's lives can be seen in terms of healthcare challenges, livelihood challenges, entitlement challenges, and social and behavioral challenges that they have faced due to the COVID-19 pandemic [9]. It is also interesting to note that people and communities across the nation evolved their mechanisms to either respond to the challenges or engage with the authorities to respond to the challenges arising

from COVID-19. These responses were either led by individuals and volunteers who organized themselves into various groups, or non-governmental organizations involved in development activities, or even led by elected representatives. Together with various elected local bodies, such groups of philanthropists and philanthropic organizations generated awareness regarding COVID-19 among the people and developed different strategies to respond to multiple challenges faced by the people and society [10].

In villages, ASHA workers undertook door-to-door surveys to educate people about COVID-19, identify suspected cases, and track the health status of individuals returning to the villages. Non-Government Organizations utilized various innovative ideas, different types of technology, and community networks to disseminate the knowledge in towns through IEC materials. They adopted multiple methods such as dedicated IEC vans, pamphlet distributions in Dadra & Nagar Haveli (freshers live, 2020), 'Whats app' videos in West Bengal, public announcements in Haryana (MoPR, 2020). Community groups such as Self-Help Groups (SHG) were involved in generating awareness at the grass root level and ensuring last-mile dissemination of knowledge. Such community groups and networks proved to be an excellent support to field workers, e.g., SHG networks in Odisha actively participated in Mask preparations. Gram Panchayats also promoted measures to promote personal hygiene through preparation and distribution of soaps at village level in Maharashtra and that of sanitizers in Kerala, Sikkim and Tamil Nadu (MoPR, 2020) [11].

Villages dealt with challenges such as food insecurity by distributing food grains as was seen in Chhattisgarh state (The Print, 2020). Village level Task forces were set up to monitor the activities. A decentralized approach was followed in Kerala and Karnataka to utilize resources that were available through village-level schemes for providing food to the needy people. Teams of local volunteers formed at village levels supported creating awareness and distributing food to needy sections of the population in Jharkhand and Kerala states. SHG federations mainly participated in running community kitchens for needy and migrant people, preparing face masks and sanitizers in Jharkhand, Odisha, and Kerala. (MoPR, 2020) [12].

Migrant laborers numbering over 482 million workers form the backbone of the Indian industrial complex. The lockdown, which entirely or partially suspended all industrial activity other than those required for the essential services, resulted in the loss of jobs or severely reduced the earnings of this section of the population. In addition to the loss of earning, the migrants also had to deal with anxiety and fear of getting infected and lack of access to food, water or money, and shelter (Jan Sahas, 2020). As a result of these challenges and lack of public transport, the migrants started traveling back to their native villages on foot while enduring severely tricky conditions. When they reached their native villages, they were again viewed as possible carriers of illness [13].

Loss of jobs and daily wages in urban areas caused reverse migration towards rural regions. The phenomenon of reverse migration has also put an additional strain on the government health services machinery with the sudden rise in the population to be serviced; additionally, the migrant laborers also pose a risk for transmission of the virus, apart from competing for the scarce jobs that are currently available in rural areas. The unemployment rate in rural areas increased from 8.3% to 21% at the end of March 2020, adversely affecting India's rural consumption rate [14].

The agricultural sector has been amongst the most severely affected by the lockdown. Agricultural activities like harvesting, procurement, etc., were hampered due to the lockdown. Agricultural production was also adversely affected because of the scarcity of laborers, a shortage of fertilizers and other essential materials, and a lack of veterinary care. Additionally, demand for fresh vegetables, milk, poultry also contracted due to the closure of restaurants, sweet shops, and other food processing units. Apart from these disruptions to

the supply chain, loss of daily wages also caused severe diet insecurities for the poor sections of the population, thus pushing them towards malnutrition [15].

This study sought to understand the challenges to livelihood faced by people in a few select villages located in Mulshi taluka, Pune district, Maharashtra state, due to the COVID-19 pandemic and steps adopted by the community to overcome the challenges. Impulsivity, reward, and loss sensitivity in decision making using Iowa Gambling Task and investigated how impulsivity affects decision-making BIS/BAS scale [16].

METHODOLOGY

The study was conducted in 5 villages in Mulshi taluka of Pune district in Maharashtra, India. The villages selected for the study were Lavale, Nande, Mulkhed, Rice, and Kharawade. The study population comprised the key opinion leaders in the villages such as village level functionaries (ASHA, ANM, Aanganwadi workers, etc.), members of the local self-government (Sarpanch, Gram Sewak, elected members of the Gram Panchayat etc.), and other influential members in the village. The purposive sampling strategy was adopted for sample selection. Key opinion leaders were divided into three categories depending upon their role in the village ecosystem. This enabled the researcher to get a comprehensive and multi-faceted view of various challenges and strategies adopted at the village level. The three categories included a) Village level functionaries i.e., ASHA worker, Anganwadi worker, Auxillary Nurse Midwife (ANM) and Multi-Purpose Worker (MPW), b) Local Self Government, i.e., Gramsevak, Sarpanch, Grampanchayat members, etc. c) Others i.e., Self-Help Group members, Ration shop owners or any other influential person from the village. One person was selected from each of the three categories from each selected village. A total of 15 respondents was interviewed for this study [17].

The data was collected in the form of in-depth interviews with the help of an interview schedule in Marathi, which is the local language. The interviews were conducted telephonically by a trained investigator.

The in-depth interviews were audio-recorded, transcribed into Marathi, and translated into English. An inductive approach was used for qualitative data analysis to condense the extensive and varied raw data into a summary format, establish clear links between the research objectives and the summary findings derived from the raw data. The transcripts were analyzed to identify frequently reported patterns related to the goals, and as a final step of the analysis, emergent themes were identified. The coding and study of the data were undertaken with the help of the MAXQDA software version 11.0 [18].

The study received ethics approval from the Independent Ethics Committee (IEC) of Symbiosis International (Deemed University), Pune.

Findings

The government initiated the nationwide lockdown to contain the spread of the pandemic. While this was directed at preserving the health of the population, they also had to face multiple challenges to their livelihoods. The majority of the populace in the study area practice farming as their primary source of livelihood or are engaged in small business activities, or are gainfully involved with various public or private agencies. It was observed that some individuals, while being employed elsewhere, also practice farming. It must be noted here that the villages which were studied are also home to migrant workers who either work as agricultural laborers, or are engaged as employees in various small businesses (like

brick kilns and construction sites) or are employed in some form in or around the villages and reside in the villages [19].

The livelihood challenges faced by the residents in the villages can be categorized as agricultural challenges, challenges due to loss of employment, and challenges due to reverse migration. The following sections describe the livelihood challenges the residents face and the coping strategy adopted during the lockdown initiated to control the COVID-19 pandemic.

Livelihood challenges faced by people in the villages and coping strategies adopted.
Agriculture challenges

Farmers, who owned agricultural land that was not irrigated, did not move out of their homes as they could not work in their farms. Additionally, farmers also faced several infrastructural and supply chain-related issues such as lack of availability of fertilizers, lack of access to market for agricultural produce, low crop yield, lack of storage facilities, etc., which led to massive wastage especially of vegetable produce.

For a short period, farmers faced difficulties obtaining fertilizers and other agricultural inputs. The key opinion leaders shared that on the one hand. At the same time, most farmers reported a lower yield of crops during the lockdown compared to previous years. The lockdown also resulted in subdued demand for various agricultural produce, forcing the farmers to either store the minimal harvest or sell at unprofitable prices. While this was a factor for the losses suffered by farmers, other contributing factors such as lack of availability of agricultural labourers, non-availability of farm machinery or its high rental cost, and the lack of storage and lack of transport facilities compounded the difficulties faced. Some respondents also mentioned that agricultural produce was fetching lower prices in the market as compared to the previous year. As a result of these challenges, many farmers abstained from harvesting their crops. In some cases, it was also found that family members contributed to the labor and assisted in the farming activity. However, many farmers had also anticipated the shortage of labor and the rising costs of seeds and fertilizers and had prepared accordingly [20].

Similar challenges were also observed in the case of individuals engaged in livestock and poultry farming. Many livestock farmers reported a decline in income during the same period due to the transport restrictions; poultry farmers could not ensure a steady supply to the urban areas, which in turn caused heavy losses. Small scale farmers and dairy farmers also incurred hefty losses. Like the poultry, lack of availability of transport meant that milk could not be transported outside the villages. In addition, there were several rumors also spread out among the people from social media platforms about the avian lineage of the COVID 19 pandemic. This created an unwarranted panic about poultry products and added to the difficulties faced by the villagers. The steadily increasing fuel prices resulted in the farmers having to bear high costs to procure fuel for their tractors and other farm equipment, further compounding their challenges.

The respondents shared that farmers and small business owners were not aware of the 'loan waiver scheme that would have helped them take new credit. Poultry owners and milk business owners lacked knowledge of the new welfare schemes introduced by the government in the context of COVID-19.

Strategies adopted to cope with Agricultural challenges -Small attempts to survive the losses.

Against this background, many farmers opted to discontinue their work on farms. Some continued working by relying upon their family members to work in the fields and save money. In addition, wherever farming was possible, it was often followed by adhering to social distancing measures. Villagers were cautious of the health and safety of children, so they used to take the children with them to the farms. The excess vegetable yield that could not be supplied to the markets, or consumed at home, was distributed among the villagers to avoid wastage, but it did not help much. This resulted in a lot of vegetables rotting in the fields.

The wastage of milk and milk products due to reduced demand for dairy products resulted in a scenario where people helped each other financially to sustain themselves. To compound the difficulties, the disruption in the supply chain of vegetables, poultry, livestock to meet the needs of the middle class residing in the cities increased the situation's complexity. Financially, losses incurred by the farmers as a result of the COVID-19 pandemic were severe. Currently, the farmers are surviving either on their savings or have borrowed money from their friends or family. It is worth noting that many people have cut down on their discretionary expenses [21].

Challenges due to loss of employment faced by daily wages laborers

The villages are home to many migrant laborers who survive on daily wages. Most migrants travel to the towns in search of earnings and livelihood. Big farmers, owners of brick kilns, businesses, etc. hire them and at times provide shelter too. The local administration does not have a system to maintain records of such laborers. This specific vulnerable population faced multiple challenges due to the COVID-19 pandemic. They lost their work, income and were apprehensive about their future. Since some gram panchayat members told them not to leave the village during the lockdown period, they had no option other than to stay in villages without necessities. Some towns are also home to a small section of the tribal population that work on the daily wages in the farms of different farmers. Their income is solely dependent on the earnings from the daily wages. They suffered a heavy loss of income and survived on the threadbare essentials left with them.

Strategies adopted- Hiring from some farmers, distributing free ration, and saving PDS from difficult times.

During the lockdown period, villagers provided the migrant workers with free food grains comprising of 5 kg of rice, wheat, and dals per person in the family. The Gram Panchayat mobilized donations in cash and kind from various donors, then distributed to the needy people in the village. This enabled the migrant laborers to survive during challenging times. The villagers also screened laborers working at the brick kiln for symptoms. Katkari (tribe) laborers were given special attention and provided with rations so they do not go outside in search of daily wages. Some respondents pointed out that work under MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme) has come to a standstill due to the lockdown, which had also affected the rural employment opportunities.

"Some farmers decided to hire the daily wage laborers in their farms so that they could earn money, a small gesture of benevolence," Deputy Sarpanch

A ration shop owner explained the distribution of grains under the PDS system in detail. He shared that the shop provides rations to 80% of beneficiaries from his village. He distributed 15 Kgs (5 Kgs of rice, wheat, tur dal, and Bengal gram dal, respectively) of grains per person in a family. He also distributed 5 Kg of free rice to each person in the family, and the shops were kept open for 12 hours daily. As per the government's directives, it was decided to

extend the Public Distribution System's reach and make available 3kg wheat and 2 kg rice per person to saffron ration card holders at subsidized rates. The other grains were distributed per the norms prescribed by GOI and the Antyodaya Anna Yojana (AAY). Along with the classical LBP, features from the completed modeling of LBP are also utilized for the classification using K-Nearest Neighbor (KNN) [22].

Challenge due to reverse migration

As soon as the news of the lockdown broke out, people started traveling back from cities like Pune and Mumbai to the villages. In one of the villages which were studied, around a hundred laborers arrived on a particular day. The tedious tasks included keeping a close eye on the migrants, informing them to bring fitness certificates from government health centers, and quarantining them for two weeks. Such situations tested the capacity of the local gram panchayats. ASHA and ANMs played an essential role in putting home quarantine stamps on the migrants for easy identification. They expressed the barriers of non-willingness and apprehension experienced while putting the stamps. The reluctance was because they were asymptomatic, and the seal would trigger the feeling of discrimination in the villagers towards them. The herculean effort to put stamp often witnessed arguments, fights that created stress in the members of the gram panchayat and the health workers.

A particular incident shared by ASHA reflects the distress experienced in the villages.

A family had migrated to the village from Pune. Because of the fear and threat of the spread of the disease, a woman from the village collected a group of other women and fought with the family. The strenuous situation was resolved after intervention from the gram panchayat members and the health workers. The members explained to the women that the family is educated and understands the significance of quarantine and were following the norms prescribed by the government. They had submitted the fitness certificate as well. So, there was no point in arguing with the family since they were harmless to the villagers.

An ASHA expressed that one individual who had migrated to the village from Parbhani started moving around, disregarding the gram panchayat's stamp and instructions. After a few days this individual, traveled back to Parbhani to bring his family to the villages. The villagers and objections observed this behavior were raised. This resulted in the Police Patil of the village intervening and warning the person that he would be forced to leave the village if he did not follow the rules. The warning led him to accept the process of quarantine. All these incidents highlight the conflicts between the villagers and the migrants coming from outside the village.

Strategies to cope with the challenge- Mandatory fitness certificates continuous vigilance quarantine for two weeks for migrants

A Sarpanch stated that it was their duty to protect people from the risk of transmission by the influx of migration from cities to villages in this situation. They decided to develop a protocol in place in alignment with the norms of the GOI, which would demand the migrants to bring a compulsory fitness certificate, a home quarantine stamp, and self-isolation for two weeks, and administration of thermal screening. A few villages had created a facility for the migrants, far from the main residential area. A support system was established with the help of local stakeholders to supply all the essentials to quarantined families.

"In an adverse situation like this, Symbiosis helped us a lot by admitting the pregnant women."

ASHA

Gram Panchayat arranged a bus to ferry migrant labourers stuck in the village to their native to Nandurbar. They were permitted to leave after availing of fitness certificates and thermal screening.

DISCUSSION AND RECOMMENDATION

This study aimed at understanding the livelihood challenges faced by the villagers during the lockdown period due to the COVID-19 pandemic and the steps taken to overcome the same. The findings observed that while one hand, exhaustive efforts taken by the Gram Panchayat and the health workers to spread the awareness regarding COVID-19, the challenges that people were faced were multi-faceted and multi-dimensional. In addition to healthcare challenges, the villagers also faced multiple livelihood challenges that were responded to by innovative approaches and philanthropic initiatives. This section discusses the findings from the study and makes recommendations for future action that can be taken to overcome the livelihood challenges.

Agricultural challenges

The critical challenge experienced was financial losses for farmers and small-scale enterprises. Apart from the loss of business, they also suffered a loss due to disturbance in the supply chain, discontinuation of farming activities because of shortage of labor, lack of fuel for tractors and agricultural machinery. The findings were similar to a recent nationwide survey conducted by the Harvard TH Chan School of Public Health and Public Health Foundation of India and Centre for Sustainable Agriculture that evaluated the impact of the lockdown on agriculture production and livelihood. Farmers across Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Telangana, Uttar Pradesh, and West Bengal participated in the survey. The financial challenges were compounded by lack of awareness regarding various government welfare schemes.

The findings regarding sales crash of meat due to the myth that chickens are carriers of the coronavirus spread on social media were also reported by various media outlets. The news revealed that Maharashtra, Karnataka, Odisha, and Andhra Pradesh appeared to be the worst affected. But presently, there is no research study available to understand the issue in detail. Further, the reduction in the supply and sale of dairy products caused severe losses to the farmers, because of which they are experiencing hardship. A similar effect was observed in several rural areas of Maharashtra that was documented in the newspapers. This specific area can be explored by further research.

Loss of jobs for daily wage workers of the rural area

The informal workers and the tribal facing financial losses due to crunch in the daily wages at the background of the pandemic highlight the severity of impact the lockdown has had upon livelihood. Further being the only earning member in the family and without any social support.

Periodic Labour Force Survey (PLFS) report shares that about 90 % or 419 million of the total 465 million workers are engaged in the informal sector with 95% and 80% in rural and urban areas, respectively. In terms of magnitude, the casual workers in rural areas (298 million) comprise almost 2.5 times higher than urban areas (121 million). This is primarily because of large number of informal workers are engaged in farm or agricultural activities

(62%) in rural areas compared to only 8% in urban areas. This reflects the high numbers of laborers engaged in rural areas, so the situation's economic aspect is worrisome, especially in a country like India.

Migration

The reverse migration to the rural parts as stated in the finding creates a risk of transmission of the virus. This is reflected in the rise of number of patients of COVID-19 in some parts of rural India. In addition, it created a burden to the existing healthcare systems that the key informants of the study voiced out. A report submitted to the Union health ministry, the government's Rapid Response Team (RRT) on COVID-19, recommended that local health authorities should focus on rural areas.

Recommendation

To overcome the livelihood and agriculture challenges, the Gram Panchayats must ensure the dissemination of information regarding various government welfare schemes. The enrolment of beneficiaries in these schemes must be regularly monitored, and the Gram Panchayats should proactively enroll those eligible. This would ensure that the residents of the villages and migrants from various other places can access welfare measures promulgated by the government. Additionally, Gram Panchayats and other local self-government bodies must have a database of migrant laborers who have migrated to the villages. This would enable the local self-governing bodies to target various welfare measures and provide for their wellbeing.

Most of the livelihood challenges that people face can be described as supply chain-related issues. Government and other authorities must set up robust supply chain mechanisms that enable people to access various services and sell their products in the marketplace seamlessly. This, coupled with implementing various welfare schemes, would allow people to respond effectively to such unexpected shocks.

The PDS has the most expansive reach to provide quick and immediate relief to the people. The government must universalize PDS and ensure that the rations are available to the people for the next six months. However, there are still many households that are not connected to the PDS network, particularly in the vulnerable sections of the population. The government must decide to ensure that they are also included into the PDS network. Additionally, the government could also open cooked meal centres to provide cooked nutritious meals for the poor and hungry. Universalization of PDS and the expansion of MGNREGS, which will provide an additional number of workdays, will enable people to overcome the immediate challenges to livelihood and provide for their immediate consumption requirements.

CONCLUSION

The COVID-19 pandemic is now being touted as the first of many illnesses that would affect life upon planet earth as we know it. The pandemic has brought to fore various issues ranging from Global warming and human-animal interaction to humanitarian challenges and even issues of the modern-day economy. This study sought to understand the challenges that COVID-19 posed livelihoods in a rural area. There is a deep-set need to improve healthcare infrastructure and ensure that there is widespread awareness regarding various government welfare schemes and penetration of the same to the targeted beneficiaries in society. From a livelihood's perspective, there is a severe need to set up robust decentralized supply chains to facilitate farm produce being collected from various sources

and provided to the customers. But perhaps the greatest need of the hour is to work towards a **decentralized** model of development along the lines of Gandhian Swaraj that is not dependent upon and moves away from metropolitan cities to the nation's villages.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly used products in our area of research and country. There is no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but the advancement of knowledge. Also, the research was not funded by the producing company; rather, it was funded by the personal efforts of the authors.

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