

## Post-mortem of the Kerala floods 2018 tragedy

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### Abstract

*After more than two weeks of relentless rain, in early August, 2018, Kerala, often referred as 'God's own country' a State at the southern tip of India, known internationally for its scenic green landscapes, tourists spots and backwaters, is left with over 1 million people in relief camps and close to 400 reported dead- the number expected to be much higher as many areas remain inaccessible. The coastal strip wedged between the Arabian Sea and the Western Ghats mountain chain is prone to inundation. Unusually heavy monsoon rains have got the entire State of Kerala in the grip of a massive, unprecedented flood: the last time anything like this has happened was in 1924. Even before the rains, Kerala's economy presented a mixed picture: relatively higher per capita income, but slow growth and high unemployment rates. As torrential rains abated in Kerala, the major question confronting the State and its unfortunate citizens is an assessment of the colossal loss of property, agriculture and infrastructure and the focus has turned towards the short-term negative implications and how will it rebuild its economy. There were evidently many political, economic, social and managerial lessons to take away from the disaster. The paper will describe the magnitude of the disaster in Kerala and the impact on the human population.*

**Keywords:** Kerala floods, Political lessons, Economic lessons, Social lessons, Managerial lessons, Rebuild the economy

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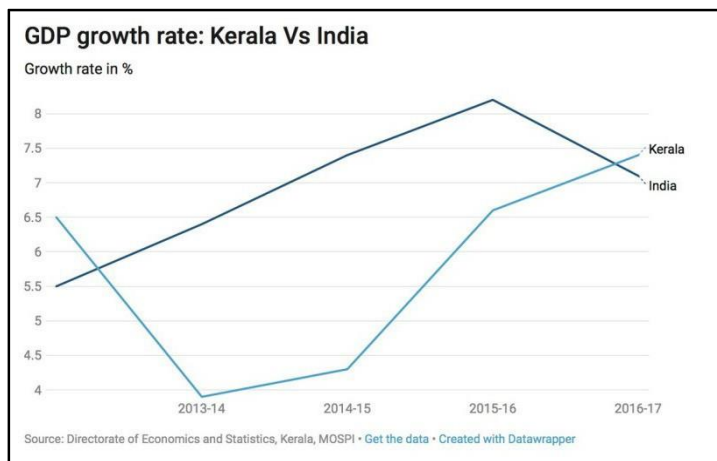
## 1. Introduction:

### How the Kerala economy flared before the floods

Kerala accounts for 2.8% of India's population, but its economy contributes nearly 4% to the Indian economy. Ranked 12<sup>th</sup> in terms of population and 8<sup>th</sup> in terms of economy, Kerala is relatively wealthier than the rest of India on the per capita income basis. The southern State's per capita income is 60% higher than India's average, fuelling internal migration to Kerala for low-end jobs (livemint, 2018). Kerala is estimated to have close to 40lakh migrant laborers, according to a 2017 study and West Bengal is one of the largest suppliers of this workforce (The Economic Times, 2018).

Between 2011-12 and 2016-17, the Kerala economy grew at a much slower rate than India's GDP growth rate. The State grew at a compounded annual growth rate of 5.72% as compared to 6.9% in India. In absolute terms, Kerala's GDP stands at 6.17 trillion rupees (livemint, 2018).

**Figure 1: GDP growth rate: Kerala Vs India**



\*Source: (How the Keral Economy flared, livemint, 2018)

Kerala has been trying to expand its economy by investing in new sectors, such as information technology and business process management services. Construction and real estate activities

are two major drivers of the economy. Manufacturing accounts for less than 10% of the economy (livemint, 2018).

The services sector accounts for about 63% of Kerala gross State value added and of which tourism alone accounts for about 10%. The other services that are complementary are hotels, restaurants and retail trade, besides transportation (essentially air and rail). Some of the most important tourist spots are located in the districts of Idukki, Wayanad, Kottayam and Alappuzha (livemint, 2018).

The main source of income for the State exchequer is the GST. Kerala is essentially a consumption State. Kerala is considered a large market for both consumer durables and non-durables alike. According to the recently released National Family Health Survey 2015-16, 30% of the households in Kerala have at least six of the following assets- *Pucca* house, electricity connection, mobile phone or a landline, air conditioner, refrigerator, television, washing machine and motorized vehicle (livemint, 2018).

In terms of gross cropped area, the three main crops in the State are coconut, rubber and paddy (livemint, 2018). Kerala has a virtual monopoly in rubber production (approx. 90% production share) in India. In fact, both Muthoot and Mannapuram derive nearly 15% of their total gold loans, business from the State of Kerala alone. There are specific banks like Federal bank, Catholic & Syrian Bank and South Indian bank, which have a strong Kerala franchise. Kerala has witnessed a massive construction boom in the last few years and the major demand for cement and concrete in the South come from the State. Companies like India Cements and Ramco have a successful franchise in Kerala (IIFL, 2018).

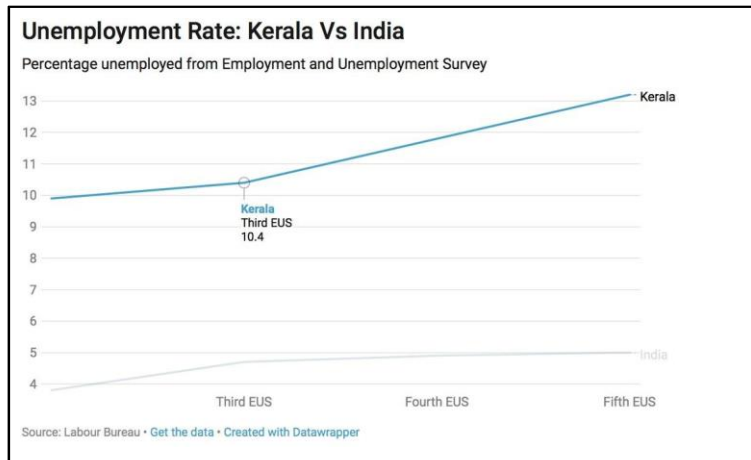
For the FMCG sector, there could be multiple implications. FMCG companies have been talking about

rural demand and companies like HUVR are already deriving 50% of their revenues from rural areas. Higher levels of literacy and a rising middle class have been a major boost for Kerala and that has made the State a key market for most FMCG companies. In fact, for specific products like Parachute hair oil from Marico, companies depend on Kerala for

approximately 30% of their copra procurement. Kerala is also the biggest market for coconut hair oil (IIFL, 2018).

Even with the services sector contributing more than 50% of the economy, unemployment was a major issue in the State, with educated youths unable to find a job (livemint, 2018). Outside of the northeastern States, Kerala suffers from the highest unemployment rate in India with only 20% of all households having availed State-run employment guarantee schemes, according to the latest Employment and Unemployment Survey (livemint, 2018).

**Figure 2: Unemployment Rate: Kerala Vs India**



\*Source: (How the Kerala Economy flared, livemint, 2018)

## Political implications of the floods

### What caused the havoc flood?

The last rival to a flood of this scale and severity in Kerala was in 1924, where the monsoons pelted the hapless State with 3,368 mm of rain. At the time, over, 1000 people have lost their lives with the enormous toll on livestock. In 2018, 2086 mm of rainfall is nowhere as bad, but still 30% above the annual average (FIRSTPOST, 2018).

A controversy has erupted as to what caused the worst flooding in a century, with the opposition leader and several experts calling it a 'man-made disaster' and the Left Democratic Front (LDF) government rubbishing such claims as unfounded and irresponsible (The Times of India, 2018). Cumulative factors of man-made 'hungry water effect' and natural effect of intense rains led to Kerala floods; reason out scientists from the National Centre for Earth Science Studies (NCESS) (Times of India, 2018). Either way, the State will have to implement long-term measures to limit catastrophes of such magnitude (The Economic Times, 2018).

Figure 3: Devastation in Kerala in pictures-Deluge



Submerged temple



Landslide



Washed away road



Brave hearts

\*Source: (Devastation in Kerala in pictures-Deluge, The Economic Times, 2018)

In 2011, the Western Ghats Ecology Expert Panel report urged a number of States, including Karnataka and Kerala, to adopt an approach of thoughtful conservation, limiting activities such as quarrying, dams and construction near protected forests in hilly areas. The report was rejected by the Ministry as well as by both the States (THE CONVERSATION, 2018).

Leading experts suggest a heavy, artificial hand in the latest deluge. The State was forced to throw open the gates of 35 of its 39 dams, being fully aware of its' outcome. The State government has been blamed for the delay in taking prompt action to mitigate floods by opening the dams well in advance, with the damages to the tune of 19000crore recorded in the State (The NEWS Minute, 2018). For the first time in history, Asia's largest arch dam, the Idukki dam, had to open all its five shutters because of the incessant rain (at one point 800,000 liters of water per second poured out of the dam, inundating the downstream) (Rediff.com India News, 2018).

Scientists at Kerala State Council for Science, Technology and Environment (KSCSTE) call for the need to ensure a riparian zone around dams and for timely management of dams to prevent such havoc (Times of India, 2018).

### **Relief works after the flood**

The humanitarian aid that continues to flow into Kerala both from within the country and abroad, particularly from the non-governmental organizations, has been quite phenomenal (Economic&PoliticalWEEKLY, 2018).

The ones, who escaped the worst, stopped their Onam shopping to buy relief materials instead. Thousands donated to Chief Minister's Relief fund. In Sunkoppla, the local church, temple and madrasa turned into relief camps and coordinated with each other to show their religion is their humanity (The Times of India, 2018).



**Figure 4: Kerala Fire and Rescue Services Personnel at work in flood-hit Chengannur**



\*Source: (UAE has not officially announced any financial aid for Kerala relief: envoy, THE HINDU, 2018)

**Figure 5: Army personnel used ingenious ways and used utensils and pipes to rescue women and children**



\*Source: (Kerala floods: 94 lives lost in last 8 days, over 200 people dead since onset of monsoons, TIMESNOWNEWS.COM, 2018)

Army, while the, navy and air force, along with local fisherman communities, activists and volunteers worked tirelessly to rescue people (FIRSTPOST, 2018). Thousands of volunteers from across the country, as far away as Kashmir, came forward to volunteer as relief camps (The Times of India, 2018). Officers of the Kerala Fire and Rescue Department

rescued people from low-lying residential areas using boats as water has entered their houses (Zee Media Bureau, 2018).

**Figure 6: Medical checkups at a relief camp in Chengannur**



\*Source: (Kerala floods: The real challenge is ahead as the water recedes, The Economic Times, 2018)

Social media played an important role in collecting donations and other necessary requirements in camps. Using hashtags like #Kerala floods, #Kerala Relief, celebrities, influencers and people of authority have been raising awareness about the floods by posting important helpline numbers, sharing safe locations and urging people to donate cash and other necessary items. Keralarescue.in, another initiative by the State government, allowed people to seek or offer relief. By visiting the website, one can request for help, make a donation, find a relief center, get important contact information and/or volunteer for their services (FIRSTPOST, 2018).

Chief Minister Pinarayi Vijayan, who has been earning accolades for the manner in which the administration handled the tragedy, has announced a slew of measures towards this. This includes interest-free bank loans to refurbish affected homes and a kit for people who return to their houses (The Economic Times, 2018).

### **Economic implications of the floods**

Their life is safe now, but the livelihood under threat (The Economic Times, 2018). According to a report by CARE Ratings, the rain battered State's GDP is expected to fall to 6.5-



7% of the budgeted 7.6% this fiscal year. The damages to roads, where over 10,000 km of the district, State and National highways have been washed away, will be high as Rs 12,000crore, while the figure for airports is nearly Rs 40 crore. With tens of thousands of homes damaged fully or partially, the average rebuilding cost will amount to Rs 50,000- Rs 1 lakh per unit, which will have to be financed by banks, leading to a double-digit credit growth. The revenue deficit will widen further against the budget estimate of Rs 12,860crore and the fiscal deficit to increase from the budget estimate of 3.1% of State GDP (FIRSTPOST, 2018).

The trail of devastation left by the recent floods in Kerala included 12lakh people rendered homeless and more than 300 dead. According to initial estimates, property worth more than Rs. 20,000crore has been lost and insurance companies have already received claims worth Rs. 1000crore. With insurance claims expected to shoot up could affect the health of insurance companies. However the impact will be limited because most of these policies are already insured with international players (The Economic Times, 2018).

Kerala is a major rubber hub and production has been hit with a loss of 420 crore (FIRSTPOST, 2018). So this will impact the tyre companies, the main users of natural rubber. But, the experts assured that the impact on their companies will be limited because this is a short-term dip and most companies have enough rubber stocks and moreover, many companies can tide over any short-term shortage by importing rubber (The Economic Times, 2018).

As the State-owned Malabar Cement is the dominant player in Kerala, most listed players could only bear an indirect impact. Among the latter, south-focused firms such as India Cements and Dalmia Bharat suffer, while Ramco Cements, which derives a majority of its business from Kerala, could be affected the most. While the shipyard division of Cochin Shipyard may not witness much disruption, the ship repairs (accounting for half of its capacity) could be affected (Rediff.com Business, 2018).

There was a fall in demand for Onam sales and for immediate consumption. Growth in GSDP can be affected up to 1% (THE WEEK, 2018). Jewelers took the biggest hit. However, it had not impact stock investors because most big Kerala-based jewelers like Kalyan jewelers' and

Malabar Gold, among others are unlisted. Durable goods manufacturers were hit. Since the repaying capacity is down in all the big three loan segments- retail, agriculture and SMEs- in Kerala, this negative impact will be applicable to other Kerala-based banks like South Indian Bank and Dhanalaxmi Bank as well (The Economic Times, 2018).

As the focus is on rebuilding and gold loan is an easy way to raise money, gold financiers will benefit from the higher demand. Companies like Muthoot and Manappuram will be the beneficiaries. They may fear the impact of NPA (Non-performing asset) factor, but it will be small as borrowers rarely default on gold loans (The Economic Times, 2018).

The impact on several Kerala-based financiers will be severe. For example, the banks based out of the State will be negatively impacted because the flood had reduced the repaying capacity of borrowers. The Statewide one-year moratorium on repayment was another issue they have to face (The Economic Times, 2018).

The construction activity is likely to slow down for two reasons. First, the State will have to get over its destination. Second, environmentalists are already blaming the rampant construction activity for these floods as it is supposed to have disrupted the delicate ecological balance in the Western Ghats. The tourism sector has also been taking a hit by train and air services being crippled and most places being inaccessible due to rising flood waters (IIFL, 2018).

### **Social Implications of the floods**

Big disasters leave lasting scars on people's minds. Psychosocial care and support should be prioritized. Contrary to general perception, economic resources and government assistance are not the sole drivers of recovery and rebuilding after a major disaster. Recent research has demonstrated that 'social capital'- that is interpersonal relations, social networks, shared sense of identity and trust within a society is crucial to recover from disasters (BusinessLine, 2018).

In Kerala, volunteer groups which include experts in social work, Bioinformatics and psychology have pooled in resources to create the Kerala Floods Mental Health Support Group, to provide emotional support and psychological rehabilitation for the flood survivors (FIRSTPOST, 2018).

The magnitude of the disaster brought together digital giants like Twitter, Facebook, GOOGLE, WhatsApp and Amazon to aid rescue and rehabilitation. Twitter, Facebook and WhatsApp, particularly, have been useful in disseminating emergency contacts, SOS messages and immediate location of those stuck in the calamity (FIRSTPOST, 2018).

The people of Kerala face a long road to rebuild their homes and lives. They are shattered. Floods have played a havoc with their lives and there is a sense of gloom among them (The Hindu, 2018). Kerala's favorite festival, Onam (15 August 2018 to 27 August 2018), fell in the shadow of the floods. But relief camps were doing their best to keep the spirits of the residents up (The Economic Times, 2018).

### **Managerial implications of the floods**

The Keralites have earned accolades for the approach in which they faced the flood fury with the, execution of plans, participation of social groups or local expertise in rescue and relief operations, and roles played by political leaders are lessons in crisis management, which, at some stage, ought to be studied and codified by Management institutions.

Quick decisions and strong leadership can make or break a company. It is important to demonstrate strong leadership to build confidence and trust of the employees, as demonstrated by the cabinet ministers to opposition leaders and bureaucrats of Kerala. They sent out a powerful, reassuring message to those stranded; importantly, it signalled serious intent to the State's machinery.

Strong coordination mechanisms will help to assign roles and responsibilities and avoid duplication of efforts and wastage of resources in a company. A weak coordination fuels

employee's anger and frustration. Information sharing is the first step towards better coordination, not just from managers to employees but vice-versa. Accurate, credible and regular information made a critical difference between panic and relative calm, during the floods. Irrespective of the content on the content on the social media, Chief Minister Vijayan, held a televised news conference every day during the worst days. He spoke directly to people, updated them to the latest operations, redirected resources, kept lines of communication open in his office 24\*7 to receive distressed calls which were passed on to the National Disaster Response Force (NDRF) teams, the army and other defense personnel involved in the operation.

Managers should be empathetic. When employees are disengaged and when their concerns and aspirations are unheard, it leaves a negative impact in their attitude and performance. Managers must remember employees are assets. While implementing any decision they have to keep in mind, the impact of the decision to the employee and secondly, the cost of inaction.

Kerala's strong culture of local self -governance, devolution of powers and decentralization ensured decisions could be taken effectively at local level without waiting for orders from the top. Factories should employ local people. Local people know the lay of the land, have networks beyond those of the government, can prove to be differentiating factor between disorganized and competent rescue operations. During the floods, the fisher folk of Kerala, who negotiate water better than others, turned into unlikely rescuers.

Managers have to take the extra initiative to educate and train their employees to update them with the latest technology and skills. Kerala's literacy and awareness ensured the population used social media effectively and responsibly during the crisis.

In the era of climate change we have just entered, extreme rainfall events are going to become increasingly common. Uncontrolled growth at the expense of the environment will severely exacerbate the impacts of climate change. Managers have to be aware that certain types of infrastructure may be less suitable to some contexts in a changing climate scenario. Pollution control is an integral component of the corporate social responsibility (CSR) policy of an organization.

Risk reduction, preparedness for risk and collaborative actions and prioritizing investments like provident fund or employee stock ownership plan (ESOP) will make a difference to the sense of security and responsibility of the employees towards their company.

## **2 Conclusion:**

During rescue operations, Keralites displayed a high-level of intra- and inter-community trust and networking. The tech-savvy coordinated the rescue works through social media platforms across the globe, saving thousands of lives and mitigating the sufferings of others. The State administration has commenced the complex and challenging task of rebuilding the ruined regions in such a way that the lives, livelihoods and the economy recover steadily. Keeping in view the solidarity developed during the disaster, Chief Minister Pinarayi Vijayan has announced a 'salary challenge'- an appeal to Keralites all over the world to donate a month's salary for rebuilding the State. Apart from financial support, communitarian and interpersonal ties are crucial for bringing the beautiful State of Kerala back to life.

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