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Covid-19 pandemic and a welfare state in the Global South: A case study of Kerala, south in India.

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Declaration

I, Johanne Dirdal-Gustad, declare that this thesis is a result of my research investigation and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature:

Date: August 14, 2022

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Abstract

This theses presents a theoretical analysis on how the Indian state Kerala have managed the Covid-19 pandemic. Kerala is known for its unique development model characterized by a relatively high level of social development at low levels of economic growth. By investing in education, public health, land reforms, setting up social welfare programs and institutionalizing workers' rights, Kerala has grown as a welfare state. When the Covid-19 pandemic started in 2020, Kerala was the first state in India with a case of infection. Experiences from previous crises of Nipah and the severe floods in Kerala, together with the Ebola outbreak in different parts of Africa, gave Kerala a framework in how to manage a new crisis. Even though the infection rate was rising, Kerala managed to be one of the states in India with the lowest fatality rate. This thesis addresses how Kerala managed the Covid-19 pandemic and how being a welfare state affected the management and further the socio-economic aspects. The theoretical framework of welfare and welfare state will provide insights of how a welfare state works, and different aspects of it. Being a welfare state seems to provide a better framework in the management of crises. In the analysis and discussion chapter both India and Kerala are analysed as a welfare state, before further analysis and discussion about the crisis management of Kerala was handled in the Covid-19 pandemic. The pandemic has given both short-term and long-term effects in sickness and death count. In addition, the pandemic has affected the socio-economic in a way that could give repercussions both now and in the future. Furthermore, the thesis will look at how previous crisis management could be applied faced with new challenges and how they can use these experiences when faced with future crises.

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Abbreviations list

COVID-19	Coronavirus Disease 2019
CSO	Civil Society organization
DRC	Democratic Republic of the Congo
EBOV	Ebola Virus
EVD	Ebola Virus Disease
GDP	Gross Domestic Product
GDSP	Gross State Domestic Product
GoK	Government of Kerala
HDI	Human Development Index
HICs	High-income countries
LMICs	Low- and middle-income countries
MERS	Middle East Respiratory Syndrome
NCD	Noncommunicable diseases
NIPH	Norwegian Institute of Public Health
NiV	Nipah Virus
OECD	Organization for Economic Co-operation and Development
QALY	Quality Adjusted Life Years
SARS	Severe Acute Respiratory Syndrome
WHO	World Health Organization

1 Introduction

January 30th, 2020, Covid-19 was declared a 'Public Health Emergency of International Concern' by the World Health Organization. The past two years, Covid-19 has affected the whole world, but some countries were more severely affected than others. India is one of the countries that has had the greatest challenges with the pandemic. In August 2020, India was "the second highest Covid-19 affected country in the world" with more than 2 million cases (Gupta et al. 2021). By August 2022, India had more than 44 million confirmed cases with 526 730 fatale results (WHO 2022).

However, Kerala, one of the southern states of India, has dealt with Covid-19 in such a matter that the deaths caused by Covid-19 has been minimal compared to the number of cases. Kerala is known for their model of development, which have ranked the state high in the Human Development Index, and other indicators that indicates good quality of life at relatively low levels of economic growth (Kjosavik and Shanmugarantnam 2004, 234). Focus areas of the model have been education, health, land reforms and welfare policies. The health system has resulted in a low and falling mortality rate and increased life expectancy (Nabae 2003, 143). Since the beginning of 2020, it has also made sure that the inhabitants of Kerala have had access to a well-functioning health care system if they are affected by the coronavirus Covid-19.

In 2018, there were an outbreak of the Nipah virus in Kerala. The state managed to isolate the virus to 18 people, resulting in 17 deaths (Sharma et. Al. 2018, 3). The same year, Kerala had to manage a severe flood, causing 498 people their lives (Varughese and Purushothaman 2021, 18). The two incidents provided knowledge Kerala could apply to new crises. When the Covid-19 pandemic broke out in January 2020, Kerala managed to handle the pandemic better than the rest of India. The Kerala model of development has been well discussed since its appearance in the 1960s, and continues to work successfully in health crisis situations. Now, two and a half years after the first Covid-19 outbreak, the state has had 70 497 deaths due to Covid-19, out of 6 723 468 cases (Government of Kerala 2022).

The long-term effects of the pandemic on socio-economic aspects are still unknown, but there has been some research throughout the pandemic showing that the social effects of Covid-19 have been fatal. This research will examine how Kerala handled the Covid-19 pandemic, and

how the pandemic has affected socio-economic aspects of Kerala. It will also reflect on what we can learn for the future from past epidemics, environmental disasters, and pandemics.

1.1 Research questions

The goal for this research is to examine how Kerala handled the Covid-19 pandemic. To do this, I have a main research question together with two sub research questions. These questions form the basis of what I wish to examine within the objective. They cover different aspects of the pandemic through crisis management, long-term effects and lessons learned.

Main research question:

- How did Kerala handle the Covid-19 pandemic?

Sub research question:

- How did Covid-19 affect the socio-economic aspects in Kerala?
- What can we learn for the future from past epidemics, environmental disasters, and pandemics?

1.2 Outline

This thesis consists of seven chapters. Chapter 2 explains the background of the research. Including information about Kerala and the Kerala model of Development, together with the background of Covid-19 both globally and in India specifically. In chapter 3 I present the study's methodology, through the research design, reliability and validity, and limitation and ethical considerations. Chapter 4 includes a literature review of three separate cases of crisis management: the Nipah virus, the Ebola virus, and the severe floods in Kerala in 2018. These will help understanding why Kerala managed the pandemic the way they did. In chapter 5 I present the theoretical framework of the thesis. The theoretical framework is based on welfare and welfare state theory. Chapter 6 presents the analysis and discussion of the research questions, as well as a reflection on India and Kerala as welfare states. Finally, chapter 7 will provide the insights of this study.

2 Background

2.1 Kerala

As one of the world's largest democracies, India has 28 different states. All the states independently control sectors of education, health, public transport, and land, while the government of India controls foreign policies, development strategies, valuta, and defense (UNA 2021).

Kerala is an Indian state placed in the southwest of the country, with a population of 35 million (World Population Review 2021). The inhabitants are spread over 14 districts with wide differences regarding people, culture, traditions, land, and lifestyle (Kerala Government 2021a). The geographical placing between the Arabian Sea and the Western Ghats, has made Kerala known for its diverse culture, with various religions and languages (Kerala Government 2021b). In addition to this, Kerala is known for its model of development. This has resulted in Kerala having the highest literacy rate in India, and the state "is noted for its achievements in education, health, gender equality, social justice, law and order" (Kerala Government 2021c).

2.1.1 Kerala model of development

The Kerala model of development has been debated internationally since its establishment in the 1960s. Between 1957 and 2001, the Communist Party of India introduced different reforms in Kerala, which resulted in the Kerala model of development. According to Kjosavik and Shanmugarantnam (2004, 232), within the quasifederal Indian policy, the state traced its own development path with a focus on equity and social justice. The Kerala model of development is characterized by high levels of social development at relatively low levels of economic growth (eg., Frankie and Chasin 1991, Kjosavik and Shanmugarantnam 2004, 2015, among others).

In 1996, Parayil (952) wrote that in the earlier stages of Kerala's development, the indicators of social development and the high literate population was "essential for creating more jobs and material outputs to meet local needs". Land reforms, feeding programs, access to health care, education, and engagement amongst "the poor and working people in democratic processes" have all together resulted in today's Kerala model of development (Parayil 1996, 950).

Already 25 years ago, indicators were introduced for how the first 30 years of the model had affected the Kerala community (Parayil 1996, 941-942). Average life expectancy had increased with 14 years for women and 12 years for men, compared to the rest of India. The infant mortality rate was 16,5 per 1000 in Kerala while the Indian average was 90. There was also almost full literacy throughout Kerala's population. Since this, Kerala has been ranked first of all Indian states in the Human Development Index (HDI) multiple times (Global Data Lab 2019).

Even though Kerala has been ranked high in both HDI and other indexes that is supposed to indicate 'quality of life', like "adult literacy rate, life expectancy, infant mortality rate and birth rate", the Gross State Domestic Product (GSDP) had been relatively low (Kjosavik and Shanmugarantnam 2004, 234). Since many of the Kerala residents becomes work or education immigrants, it has been difficult to increase the GSDP in Kerala. This has challenged the economic growth in the area. However, as a result of globalization, Kerala has been able to achieve higher economic growth due to tourism, migrant remittance, and good socio-economic achievements (Yamuna 2016; Aneja and Praveen 2022; Nithya 2014).

2.1.1.1 *Land reforms*

The Land Reform Act of 1969 have become an important aspect in Kerala's development achievements regarding lower birth and death rates and higher levels of literacy (Scaria 2010, 191). Parayil (1996, 945) stated that:

> "The most notable part of the land reform and redistributive program was the right given to the tenants of the households to retain full ownership of their dwellings plus full title to one-tenth of an acre of the house-compound land. Some surplus land, mostly rice fields, appropriated from large land-holders was distributed to the peasant as well."

Despite some opposition from "reactionary landowners and religious groups, and a hostile Congress-led central government" to enact the reform (Parayil 1996, 945), the implementation became one of the main achievements of the Kerala model as India's most consistent land reform (Törnquist 2022, 69). The reform ensured ownership rights to cultivating tenants and homestead rights to hutment dwellers, as well as a few cents of

adjacent land (eg., Scaria 2010, 191, Krishnaji 2007, 2171). Surplus land was made available for redistribution to the poor. Having the right for land strengthened tenants as they no longer were dependent on wages and varying working conditions (Krishnaji 2007, 2171).

The reform led to a "rapid commercialization of agriculture" resulting in a state supported agrarian prosperity, which further led to an "unprecedented strengthening of capitalist relations in agriculture" (Krishnaji 2007, 2171). Still, there were some challenges regarding the reform. The cropping of land and distribution did not take the special topography of Kerala under considerations. The diverse topography affects the agricultural cultivation, making it possible to in some parts cultivate coconut, other parts tea and coffee, or rubber and pepper. Since there are different costs and revenues regarding the products cultivated, the topography also differentiates the inhabitants. The place of birth and residence of the population of Kerala affect their wealthiness and, in that way, create inequalities in the population (ibid, 2171-2172).

2.1.1.2 Educational system

One of the 'basic pillars' of the Kerala model is public provisioning of education and accessible education (Oommen 2008, 23). The General Education Department of Kerala (n.d.) states on their website that:

> "Kerala's achievement in social development and quality of life are, no doubt, inspiring and encouraging. The state has achieved a human development index comparable to the development countries of the world. The society attaches so much importance to education that the school in Kerala is really the nucleus of the social microcosm. Better education kindles the aspiration of the people and the main concern is on how to improve the quality of education."

The education system of Kerala is well known for having close to everyone enrolled in schools as well as having a low dropout rate. Kerala was the first state of India "to have achieved universal literacy", and the state has been able to provide education with no or low fees since the educational institutions are "owned or aided by the government" (Kumar and George 2009, 55). The government of Kerala has had success with high educational rates and made education available for everyone. In 2009, 94% of the rural population was served by "primary school/section within a distance of 1 km", and 98% of the population had a school

within the distance of 2 km (Kumar and George 2009, 55). The upper primary school was available within a distance of 3 km for more than 96% and the secondary education was available within a distance of 8 km for close to 98% of the rural population (ibid). Also higher education are available within reasonable distance (ibid). The availability of education close to home, have done great things for the literacy rate. In 2011, the literacy rate was 93,91 percent (Kerala Legislative Assembly). Together with a high literacy rate, the educational system also has been able to "achieve gender equity in enrolment to a large extent" (Kumar and George 2009, 55). In 2011, the literacy rate among females were 91,98 percent (Kerala Legislative Assembly).

In 2021, Sametham Kerala School Databank states that there are a total of 17 185 schools. Of the 17 185 schools, 7168 of them are Lower Primary Schools, 3044 Upper Primary, 4507 High Schools, 2077 Higher Secondary Schools, and 389 Vocational Higher Secondary Schools. There are 6169 of the schools that are Government Schools, 8185 are aided schools and 2831 are unaided schools (Sametham 2021).

2.1.1.3 Kerala's health care system

Together with education, Kerala's health care system and access to it has been an important factor to the Kerala model (Oommen 2008, 23). Nabae (2003, 141), studied the health care system in Kerala in 2003 and stated that:

> "The health care system is considered to be the principal factor for attaining the high level of health status in Kerala. From the formation of the state, health care provision was one of the governments' top priorities, and the system was developed in a way that incorporated both western and traditional medicine that was accessible to the people".

Michael and Singh (2003) write about how Kerala's improving health status is giving mixed signals. There is not necessary a connection between economic well-being and public health, due to Kerala's high HDI and low GSDP. Still, even though Kerala has a low and falling infant mortality rate and increased life expectancy, there are still high rates of morbidity and illness in the state. Nabae (2003, 143) brings out the challenges of the poor spending "40 % of their income on health". In addition, there are challenges due to medical personnel being attracted to the private sector as the salary is two to three times higher than the public sector. Nabae (2003, 143) suggest to raise taxes and invest in public health services to make the

health care system of Kerala more efficient. However, Kerala's GSDP is amongst the lowest in India, followed with high unemployment rates which then makes it challenging (ibid). In the 1960-1970s, Kerala invested more in health care and education than the rest of India. However, in the 1970s Kerala had a fiscal crisis, which forced them to cut back on investments in health care (Thomas Isaac and Sadanandan 2020, 37). To ensure quality of the health care system, the private sector stepped in and now they provide "the majority of secondary and tertiary care institutions" (Varughese and Purushothaman 2021, 22). The public health system is still focused on providing the basic health care facilities. The combination of public and private health facilities has "helped Kerala meet the surging demand for quality health care" (ibid).

2.2 The Covid-19 pandemic

January 30th 2020, World Health Organization declared Covid-19 as a 'Public Health Emergency of International Concern'. World Health Organization (n.d.a) states the severity of the virus by saying "anyone can get sick with Covid-19 and become seriously ill or die at any age". Still, the majority of people infected experienced "mild to moderate respiratory illness and recover without requiring special treatment" (WHO n.d.a). The most common symptoms are tiredness, cough, fever and loss of taste and smell (ibid). The incubation time for the coronavirus is 5-6 days in average, but in some cases, there has been up to 14 days from someone being infected with the virus before the symptoms shows (ibid).

The Norwegian Institute of Public Health (2022) explains that: "the coronavirus family includes many different viruses that can cause respiratory infection. Many coronaviruses only cause colds, while others can cause more serious illness and in some cases death." January 2020 Covid-19 was identified as the disease caused by the virus SARS-CoV-2, also known as the coronavirus. It has some of the same genetic similarities as the SARS virus, causing the SARS epidemic in 2002. MERS is another syndrome caused by a coronavirus (NIPH 2022). Both the SARS epidemic and the MERS outbreak was probably caused by animals. NIPH (2022) states that "the SARS infection probably came from bats via civet cats or other animals" and that "dromedaries and camels were the source of infection for the MERS virus discovered in 2012". There have been some discussions on how the SARS-CoV-2 virus was transmitted to human, but it is believed to have come from bats in the end of 2019, "either directly or via other animals" (ibid).

After the first transmission directly or indirectly by animals, the most known transmission chain is from human to human. WHO (n.d.a.) states that: “the virus can spread from an infected person’s mouth or nose in small liquid particles when they cough, sneeze, speak, sing, or breath”. To slow down and prevent transmission WHO (n.d.a.) explains that the best way to protect yourself and others, is by keeping social distancing with at least 1 meter, covering the nose and mouth with a mask, and washing hands or using alcohol-based rub frequently. These recommendations, together with local restrictions has been the guidance the whole world has followed since the outbreak of the pandemic.

As other viruses, the SARS-CoV-2 also mutates. Some of the mutations have “little or no effect on the properties of the virus” but often mutations result in the virus losing some of its infectivity and becoming less dangerous, but more contagious (NIPH 2022). Still, the SARS-CoV-2 virus has taken millions of lives from the first outbreaks in 2020. In January 2022, Worldometer states that there have been over 5,6 million deaths caused by Covid-19. However, there will always be dark numbers, as not every case is identified or tested for Covid-19. Anand and his colleagues estimated in June 2021 that there was a total of 3,5-4 million Covid-19 related deaths just through the two first waves in India. The official death count from India in June 2021 was 400 000 (Anand et al. 2021, 1-4).

2.2.1 Global Covid-19 restrictions and management

Since the outbreak of the pandemic, different countries have operated with different restrictions. However, the World Health Organization have presented global recommendations for preventing infection and to slow transmission of the virus. These have been updated rapidly, as the situation has changed. In August 2022, the recommendations were the following:

- “Get vaccinated when a vaccine is available to you.
- Stay at least 1 meter apart from others, even if they don’t appear to be sick.
- Wear a properly fitted mask when physical distancing is not possible or when in poorly ventilated settings.
- Choose open, well-ventilated spaces over closed ones. Open a window if indoors.
- Wash your hands regularly with soap and water or clean them with alcohol-based hand rub.
- Cover your mouth and nose when coughing or sneezing.

- If you feel unwell, stay home and self-isolate until you recover."
  (WHO n.d.a)

Apart from the WHO recommendations, countries have chosen different strategies in handling the pandemic. Some countries have had few and lighter restrictions, hoping that that a herd immunity will cause a faster end to the pandemic. Other countries have tried to minimized infection with many strict restrictions. Many countries have held some kind of lockdowns. The contents of the lockdown have been variated and have included curfews, closed schools, home office, closed stores, number restrictions for private and official settings, travel restrictions and so on (Euronews 2022). An example is Uganda where the schools were closed fully or partially from March 2020 to January 2022. This constitutes the longest educational lockdown in the world (Muhumuza 2022).

It is, however, some countries who have chosen a different way to deal with the pandemic. In the beginning of the pandemic, the president of Belarus' went against medical advice and recommended "vodka and saunas as a way to stay safe" (Dunford et. al 2020). The health ministry of Belarus recommended for some prevention and physical distancing to handle the virus. Still, the country is one of the few countries that did not impose a national lockdown, unlike the rest of Europe (Statista Research Department 2022). By May 2022, Belarus had 982 867 cases with 6 978 fatale results, 13 220 483 tests were used (ibid). The relative low death rate can relate to Belarus having large hospital capacity, allowing infected people to be isolated early (Karáth 2020). While the Belarusians got little help of restrictions from the authorities, they made restrictions for themselves. From early on many Belarusians practiced self-isolation, wore face masks, and started a crowdfund campaign to buy safety equipment for the Belarus' hospitals (ibid).

Late 2020, the global Covid-19 vaccination began. In January 2022, 61 % of the world population have received "at least one dose of a Covid-19 vaccine" (Ritchie et al. 2022). With a higher percentage of vaccinated inhabitants, some countries have chosen to have different restrictions for vaccinated and non-vaccinated people, like corona certificates. Even though 61 % of the world population have been vaccinated with one or more doses, this is not evenly spread throughout the world. In low-income countries the vaccination per cent is as low as 10 % (ibid).

Together with a low degree of vaccination, low- and middle-income countries (LMICs) struggle with following the same restrictions and recommendations as the high-income countries (HICs), even though the Covid-19 response strategy was adopted by many of them. With having "inadequate access to basic resources necessary to survive and comply with the restrictive measures associated with lockdowns", the lockdowns in LMICs risk "leading to tragic consequences, e.g., starvation, economic ruin, neglect of other pressing health issues" (Eyawo et al. 2021).

2.2.2 Covid-19 in India

In recent years, the Indian middle class has grown, resulting in a better economy. However, due to the pandemic, India has suffered an economic set back with over 26 % (URIX 2021). And whilst being placed in the LMICs category as a middle-income country India has struggled handling the pandemic which has resulted in high infection and death rates. Already by 11th August 2020, India was "the second highest Covid-19 affected country in the world with 2.1 million cases" (Gupta et al. 2021). The first case of Covid-19 in India was on January 30th in Kerala (ibid). Since then, the virus has spread all over the country. In February 2022, Reuters stated that India in average reported 238,631 new infections daily, which is 61% of the highest daily average reported on May 9th, 2021. From January 3rd, 2020, to August 8th, 2022, there was 44 161 899 confirmed cases of Covid-19 with 526 730 deaths. They began their vaccination January 16th, 2021, and by August 2nd,2022, 2 048 207 705 doses was administered (WHO 2022).

It has been challenging for India to handle the high and rapid infection rate. With 1,38 billion inhabitants, India is the world second most populous country (UNA Norway 2021). India has the third biggest economy in Asia, after China and Japan. Still, India is one of the world's poorest countries according to the Gross Domestic Product (GDP). This is a result of the high population, and the economy not being evenly distributed (ibid). India's low GDP ranking indirectly affects how the pandemic has designed itself. With huge densely populated cities, and various living standards, Covid-19 restrictions have been challenging to adapt. Gupta with colleagues (2021) explains the challenging situation by stating:

> "City life is closely associated with mobility, inter-mixing, and risk-taking behavior, which eventually makes it vulnerable to transmissions compared to their rural counterparts, especially in developing countries."

From the beginning of the pandemic, India responded strongly. The Ministry of Health and Family Welfare issued travel advisory where everyone had to self-quarantine for 14 days (Khanna et al. 2020). Guidelines for "personal hygiene, surveillance, contact tracing, quarantine, diagnosis, laboratory tests, and management" where developed, and people were advised to avoid mass gatherings and places where there could be animals, like farms and markets (ibid). Further Khanna with colleagues (2020) explains that: "Amenities like hotels, colleges, railway train coaches, etc., were converted into quarantine facilities and large public places as stadiums were converted into isolation wards to handle an anticipated increased number of cases".

On March 22nd Indian inhabitants were requested to stay home as the Indian government declared "Voluntary public curfew". Two days later, the government declared a full national lockdown for three weeks (Sahu et al. 2020). The restrictions that were implemented national wide was:

- "Stay at home orders except for emergency situations like groceries, pharmacies and medical aid.
- Shutting down of tourist spots, religious places, cinema halls, malls, and the public transport system.
- Closure of schools, colleges and universities.
- Cancellation of all the regional and nations conferences, sports gatherings, mass gatherings.
- Self-reporting portal for symptomatic patients."
  (Sahu et al. 2020)

The lockdown was supposed to last for three weeks, but lasted for 75 days to prevent further transmission of the virus. In June 2020, the government started a phased reopening, but kept some restrictions (Kumar 2020). After the full lockdown, there have been sporadically lockdowns and restriction affecting the Indian community. The lockdown of almost all services has severe consequences. Gupta with colleagues (2021) states that:

> "Issues like joblessness, loss of income, food shortages affected the population. Manufacturing, mining, construction, trade, tourism etc. incurred economic loss. This impacted on the country's economic slowdown."

Especially in the lower classes of India different socio-economic aspects have made the lockdown challenging. Where there are normally difficulties of "homelessness, daily wage payment, unemployment, and lack of social security", a lockdown makes it even more challenging to deal with the lockdown (Gupta et al. 2021). With increasing unemployment caused by restriction, further issues like "hunger poverty and mental illness" could be growing problems for the Indian population in the time to come (ibid).

The lockdown resulted in even bigger socio-economic struggles, but kept the virus under control and avoided massive death tolls. Even though the lockdown managed to keep down the infection rate for some time, India struggled with handling the second wave of Covid-19 in 2021. In May 2021, URIX, a Norwegian foreign affairs television newsmagazine, interviewed the Indian journalist, Saahil Menghani. The episode was called "India, dear India" and showed the Covid-19 situation in India during the second wave of Covid-19. Menghani researched how many deceased people that came to crematoriums and cemeteries from Covid-19 centers and hospitals in the period of April 18th to May 2nd 2021. His research showed that 8558 people were cremated, while the New Delhi government numbers said that 5006 people passed away and was cremated due to Covid-19 in the same period. Menghani had 3552 more people on his list, which shows that entered figures do not necessarily match with reality. The numbers do not include perished outside of Covid-19 centers and hospitals (URIX 2021).

In June 2021, Anand and his colleagues published their research which concluded with India having underreported their death toll from Covid-19 cases. The official death count of June 2021 was 400 000, while in the new research estimation shows that numbers could be between one and six million, while the central estimates is between 3,5 to 4 million deaths just from the two first waves (Anand et al. 2021).

3 Methodology

3.1 Research design

This research aims to examine how Kerala managed the Covid-19 pandemic. To do this, the research strategy is qualitative research in the form of literature analysis and analysis of secondary data. Some of the literature are further based on quantitative research, making it possible to link and compare results between different types of research. In order to analyze how Kerala managed the pandemic, a research in the form of a case study design has been applied. A case study entails "detailed and intensive analysis of a single case" (Bryman 2016, 60). The case study can be an examination of for example a single community, organization, person, or event (ibid). Covid-19 in Kerala will be this research's case, and the aim is to "provide an in depth examination" of the state of Kerala's crisis management during the case of Covid-19 (ibid, 61).

To better examine the case of Kerala and Covid-19, I have presented an overview of recent crisis management experiences in Kerala. The literature review is supposed to help understand what is already known of the topic (Bryan 2016, 6). To better understand how Kerala's crisis management worked, it was therefore natural to include both Kerala's management of the Nipah Virus outbreak in 2018, together with the severe floods in 2018 and 2019 as two separate cases. The Ebola outbreak in the Democratic Republic of the Congo in 2021 was included as a case to show how another country managed a health crisis with the similar starting point.

As this research is based on secondary data, the data collection was done through relevant searches of documents, articles, local and international newspapers, journals, and so on.
To analyze the collected data there are two general methods; analytic induction and grounded theory (Bryman 2016, 570). In this research it was most relevant to use the grounded theory. Strauss and Corbin (1998, rendered in Bryman 2016, 382), defines grounded theory as:

> "Theory that was derived from data, systematically gathered and analyzed through the research process. In this method, data collection, analysis, and eventual theory stand in close relationship to one another."

After collecting the data, it was further analyzed and coded into relevant thematic groups to ensure that different aspects of the research were provided. My different main codes of themes were further divided into subheadings for additional coding. For example, the theory, and analysis and discussion chapters was divided in the codes:

1. Theoretical framework
    a. Welfare and welfare states
        i. Welfare in the Global South
        ii. Criticism of welfare states
2. Analysis and discussion
    a. Welfare systems in India
        i. Welfare system in Kerala
    b. Covid in Kerala
        i. Socio-economic aspects of Covid-19 in Kerala
    c. Learnings for the future from past health and environmental crises

While I was coding relevant articles, I also used the snowball methods to find additional relevant literature. This was done through relevant literatures reference list. The process was continued until an adequate depth of literature was achieved. In that way the literature review could be more robust and representative (Bryman 2016, 418). As this research was done during an ongoing pandemic, the literature available were constantly updated. It was important to keep the information in the research updated, so that important information were not outdated. As many of the topics through the research are overlapping, I found it useful to edit and update the literature in the different parts together as the research went. This made the research progress going slower than necessary. However, it is not unusual to write and edit the literature, and it can be useful as well as the knowledge and information are continuously build (Bryman 2016, 109).

3.2 Reliability and validity

It is important to ensure both reliability and validity in research, as it works as a quality criterion (Bryman 2016, 41). Hox and Boeije (2005, 598) explains that "secondary researchers must consider carefully whether the data appropriately fit their research question". Reliability refers to if the "results of a study are repeatable" (Bryman 2016, 41). Validity is

related to “the integrity of the conclusions that are generated from a piece of research” (ibid). To ensure reliability and validity, triangulation was used. Triangulation means using “more than one method or source of data in the study” (Bryman 2016, 386). When including multiple samples, and use different kind and sources of existing research, there will be easier to ensure both reliability and validity of the research. In this research it was used multiple sources to every thematic group to ensure reliability and validity. To further ensure the quality of the collected data the four criteria of Scott (1990, rendered in Bryman 2016, 546) were used:

> “1. Authenticity. Is the evidence genuine and of unquestionable origin?
> 2. Credibility. Is the evidence free from error and distortion?
> 3. Representativeness. Is the evidence typical of its kind, and, if not, is the extent of its untypicality known?
> 4. Meaning. Is the evidence clear and comprehensible?”

The trustworthiness of the research can be connected with the four criteria of credibility, transferability, dependability and confirmability (Bryman 2016, 44). The credibility is ensured through secure and well processed data collection, and through the four criteria of Scott (1990). Through the research, crisis management is compared between different situations and countries, making the research’s transferability possible to use in other contexts as well. The dependability is ensured through combining quantitative numbers of infection and fatality rates from secure sources, and by using triangulation to ensure that the information about the crisis management was as accurate as possible. The confirmability is based on how the researcher is objective in its research. When going into this research I had little knowledge of the topic, making it easier to stay objective. Still, I knew that Kerala had managed the pandemic in a more successful way than the rest of India, making it important to not glorify the state, but to be critical to how the management was done.

3.3 Limitations and ethical considerations

The original design idea for this research was to combine primary and secondary data, with field work and semi-structured interviews as primary data. The fieldwork and interviews would have made it possible to understand how the pandemic and handling affected the inhabitants of Kerala in a more diverse matter, than just by using secondary data. However,

the Covid-19 pandemic and its restrictions, required a change in direction in the initial research design. The combination between literature review and interviews would have provided a more complete analysis of the crisis management. Due to the prolonged pandemic, it was not possible to travel to India during this study. It was difficult to predict when the country would open, and in that way challenging to plan tentative travel plans. When India first opened up for travels, it was difficult to put together a travel at such a short time span. To make it more predictable the research became a secondary data-based research.

There are also ethical challenges regarding traveling to do research right after the boarders have opened. It could be challenging to find interview objects open to talk about something that happened so recently. Many of the interview objects could have been in challenging situation with having lost someone to the pandemic, lost their jobs, had their education paused, having economic challenges and so on, making the topic sensitive. Doing research on a pandemic which have caused thousands of people their lives, and affected even more lives, make some ethical challenges. It is important to do the research and write with respect for those affected by different matters, as well as having an objective perspective as a researcher.

4 Crisis management: An overview of recent experiences

4.1 Nipah Virus

The Nipah Virus (NiV) is a zoonotic virus which often transmits to people from animals (WHO 2018). Soman with colleagues (2020, 1) explains that: “Nipah is considered one of the world’s deadliest viruses with the heaviest mortality rates in some instances. It is known to cause encephalitis, with cases of acute respiratory distress turning fatal”. With a fatality rate estimated at 40% to 75%, and no treatment or vaccine available for people or animals, there is a huge challenge in how to handle the outbreaks (WHO 2018).

The virus is a “bat borne pathogen” which causes “lethal encephalitis in humans” (Soman et al. 2020, 1). The most common symptoms for humans are headache, fever, and other neurological symptoms. Other symptoms like “vomiting, dizziness, brain stem abnormalities, reduced or absent reflexes, and doll’s-eye reflexes” were also common (Sharma et al. 2018, 4). From being in contact with the virus, the incubation period is believed to be from 4 to 14 days.

WHO (2021) explains that the Nipah virus disease is possible to prevent by "avoiding exposure to bats and sick animals in endemic areas, and avoiding consumption of fruits partially eaten by bats and avoiding drinking raw date palm sap/toddy/juice". Transmission risk of fruit can be prevented by washing and peeling (ibid). Even though there are different ways to prevent the virus transmitting, multiple cases have been detected in different areas the last decades.

4.1.1 Cases of NiV

The first cases of the Nipah virus were reported in Malaysia and Singapore in the late 90s. Since then, there have been some cases in Asia, mostly in Bangladesh, but also some in India and the Philippines. Kerala had their first outbreak in 2018, and it caused 17 people their lives. This was also the last known outbreak of the Nipah virus, except from two isolated cases (Sharma et al. 2018, 1-3).

There has been three outbreaks and two single cases of the Nipah-virus in India. The two first outbreaks were in West Bengal in 2001 and 2007, and the third in Kerala in 2018. The two isolated cases were in Kerala in 2019 and 2021 (WHO 2021). In the first outbreak there were 66 laboratory confirmed patients, where 43 died. The second outbreak was limited to five people, but all the infected lost their lives within a week of infection. The third outbreak had 18 positive cases and 17 fatalities. Out of these three outbreaks, there were a total of 89 positive cases, including 67 deaths. This forms a deathrate of 75,2 % out of the three first cases (Sharma et al. 2018, 3).

In 2019 there was a single case of NiV where a 21-year-old male student was infected. The case was not fatal (Sudeep et al. 2021). The most recent case of NiV in Kerala was in September 2021. A 12-year-old boy developed low grade fever late in August, and early in September NiV-infection was detected. The day after NiV was detected, the patient died (WHO 2021).

4.1.2 Transmissions of NiV

The Nipah virus is mostly known from transmission between animals and humans, but both Bangladesh and India found person-to-person transmission evidence as well (Sharma et al. 2018, 4). One of the most common transmission chains for NiV is via bats and either directly to humans, or through other animals. The Pteropus fruit bat, also called "flying foxes" are

considered “natural reservoirs” for NiV (Soman et al. 2020, 2). Soman with colleagues (2020) explains that there are three main transmission chains known from the outbreaks in Malaysia, Singapore, Bangladesh, and India. All the transmission chains begin with bats infected with NiV. The first transmission chain is from bats to pigs that has eaten bat bitten fruit and gets the Nipah virus, which further transfers to humans that handled the pigs who were infected. The second transmission chain is from humans eating from palm sap contaminated with NiV from bats, the virus is further spread through human-to-human contact. The third chain opens for a bat-to-human transmission, but the transmission was not supported by adequate evidence, but there have been reported nosocomial spread of the virus (Soman et. al. 2020, 4).

The transmission chains have resulted in some new research. Plowright and her colleagues (2019) discuss in their article “Prioritizing surveillance of Nipah virus in India”, how the Indian government could surveil the virus through monitoring bats in India, especially in Kerala. We know that one of the most common transmission chains for the virus is from bats and either directly to humans, or through other animals. There will therefore be natural to think that a surveillance of bats in India, will be beneficially for the government of India. A surveillance will be able to identify and predict future reservoirs for the Nipah virus (Plowright et al. 2019, 1).

The bats in the research of Plowright and her colleagues (2019) were mainly sampled outside India, “using a trait-based machine learning approach, we identified at least four additional Indian bat species that are likely to have been exposed to Nipah virus or cross-reacting henipavirus” (Plowright et al. 2019, 2).

4.1.3 Public health response

The state government of Kerala tried to minimize further infection of the virus with isolation of infected people, and in that way reduce further transmissions. They also used quarantining of contacts to control further transmissions (Kumar 2021, 4-5). The different public health responses that were implemented is presented by WHO (2021) as:

- “The state government held a meeting of senior health officials to plan and implement response measures;
- A district core committee was formed, and a district Nipah virus disease action plan was released for all stakeholders;

- A multi-disciplinary central team from the National Centre for Disease Control was sent to Kerala state to provide technical support. Immediate public health measures were applied, including active case finding in the family, hospitals, village and areas with similar topography especially in Malappuram district, located in the southeast of Kozhikode district;
- Risk communication messages to the public about the transmission of Nipah virus disease and prevention measures were provided;
- State authorities issued an alert to Mysuru, Mangaluru, Chamarajanagar and Kodagu districts in Karnataka state, which border Kerala state."

When there is suspicion of a Nipah virus case, the health care workers should contact local and national experts to arrange for laboratory testing (WHO 2021). In that way the virus can be detected in an early stage, and the risk of further infection is diminished. To reduce the risk of infection, WHO (2018) recommends raising awareness of risk factors and educate inhabitants on how to reduce exposure of the virus. To do this, there should be a focus on how to reduce the three main transmission chains; bat-to-human, animal-to-human, and human-to-human (WHO 2018).

With three additional cases of the Nipah virus disease in Kerala since 2018, the state has managed to gather some experiences on how to handle the virus. WHO (2021) explains that with the recent episodes of the Nipah virus disease, India has "demonstrated the capacity to carry out outbreak control activities, including case identification, laboratory testing, case management, contact tracing and risk communication". Since there are no treatments or vaccines available to get rid of the Nipah virus, the case management is focused on "the delivery of supportive care measurers to patients" with intensive supportive care for those in need (WHO 2021). It was also developed experimental monoclonal antibodies for compassionate use (ibid).

4.2 Ebola Virus Disease

The Ebola virus disease (EVD) is a disease caused by the zoonotic virus Ebola (EBOV) and causes often severe or fatal illness in humans. EVD is transmitted to people from wild animals and further spreads through the human population with human-to-human transmission (WHO n.d.b). The human transmission is either through direct contact with infected people, or through contact with infected bodily fluids or contaminated fomites (Jacob et al. 2020, 1).

The most common symptoms are loss of appetite, physical weakness, breathing difficulty, abdominal pain, dark stool, and blood in their vomit (WHO 2021b). In the early stages of the disease, the symptoms are flu-like and easy to misdiagnose. Other symptoms that could occur early are vomiting and diarrhea, which also are easily misdiagnosed to other diseases, such as malaria, which is common in the area. Symptoms of internal and external bleedings occur in approximately 20 % of cases, where internal is the most common (WHO n.d.b). Since the symptoms are easy to misdiagnose, it is challenging to diagnose EVD. Jacob with colleagues (2020, 1) explains that:

> "Diagnosis requires a combination of case definition and laboratory tests, typically real-time reverse transcription PCR to detect viral RNA or rapid diagnostic tests based on immunoassays to detect EBOV antigens."

The incubation period is 2-21 days. If there are no symptoms after 21 days, there has been no transmission (WHO 2021c). There is no licensed treatment that neutralizes the virus, but early supportive care with "rehydration, symptomatic treatment improves survival" (WHO n.d.b). Still, the average EVD case fatality rate is around 50 %. Previous outbreaks have had varied fatality rates from 25 % to 90 % (WHO 2021c).

4.2.1 Cases of EVD

There have been different outbreaks of EVD. The Democratic Republic of Congo (DRC) have had multiple outbreaks since the first in 1976. All the outbreaks have had fatality rates from 46,9 to 90,9 per cent. Gabon have had five different outbreaks, where one of them also exported to South Africa, the fatality rate was between 61,5 to 90,9 per cent. To single cases have been registered in Russia, both with fatale result (Jacob et al. 2020,4).

The largest outbreak of EVD so far was between 2013 and 2016, and affected thousands of people in West Africa. The virus spread from Guinea into Liberia, Mali, Senegal, and Sierra Leone. There were also detected some cases in Europe and the United States. In total there were 28 652 numbers of cases with 11 325 fatale results, making a fatality rate at 39,5 % (Jacob et al. 2020, 4). This outbreak was by far the largest and most complex having "more cases and death than all other outbreaks combined" (WHO n.d.b).

The second largest outbreak found place in DRC between 2018 and 2020. It was a total of 3481 cases and 2299 fatale results, with a fatality rate at 66 % (WHO 2020). The most recent outbreak of EVD was also placed in DRC, in October 2021. The first case was a 3-year-old boy which developed symptoms of "physical weakness, loss of appetite, abdominal pain, breathing difficulty, dark stool and blood in the vomit". The boy passed away October 6th. The virus had spread to the neighbors of the boy, causing two children and their father to develop symptoms, and further died of the disease in the second half of September 2021. None of them were tested for the disease, but the symptoms were consistent with Ebola (WHO 2021b). Between October 8th and December 16th there were a total of 11 cases where eight was confirmed and three were probable. The fatality rate was 82% with 9 deaths (WHO 2021d).

4.2.2 Transmission of EBOV

Also, EBOV is connected with fruit bats, similar to both NiV and Covid-19. Other animals that have introduced EBOV to humans are monkeys, chimpanzees, gorillas, porcupines, and forest antelope. The virus only transmits if humans are in contact with the infected animals " blood, secretions, organs or other bodily fluid" (WHO 2021c). Jacob with colleagues (2020, 2) explains the that:

> "Most outbreaks can be traced back to a single spillover introduction of EBOV into the human population from a unknown reservoir by unknown means. Subsequently, the virus is transmitted by direct, typically non-aerosol, human-to-human contact or contact with infected tissues, bodily fluids or contaminated fomites."

Further the virus spreads through human-to-human contact through direct contact with either "blood or body fluids of a person who is sick with or has died from Ebola" or "objects that have been contaminated with body fluids (like blood, feces, vomit) from a person sick with Ebola or the body of a person who died from Ebola" (ibid). One person cannot transfer the disease before symptoms are developed, even though the person is infected (ibid).

4.2.3 Public health response

The unexpected scale of the outbreak in 2013-2016 caught local, national, and international organizations unprepared (Jacob et al. 2020, 2). Since then, there have been lessons learned

and in the latest EVD outbreak the Ministry of Health of DRC, in collaboration with WHO, was early on with initiated measures for handling the outbreak and preventing further transmission. Both national and district management were coordinating to respond to the virus. WHO (2021d) explains that:

> "Multidisciplinary teams were deployed to the field to actively search and provide care for cases; identify, reach and follow-up contacts; and sensitize communities on the outbreak prevention and control interventions."

The United Nation (n.d.) also provided the Ebola outbreak management with a framework called 'STEPP'. The framework consists of a five-point strategy of (1) stop the outbreak, (2) treat the infected, (3) ensure essential services, (4) preserve stability, (5) prevent further outbreaks. In addition there were presented public health measures that included monitoring active cases, testing of possible cases, strengthening the Infection Prevention and Control capacity at health facilities, and training and re-training health workers for "early detection, isolation, and treatment of EVD cases" (WHO 2021d). There were also offered psychosocial support to affected individuals and families. For the first time in EVD history, there were also licensed vaccine doses. In that way a total of 656 people were vaccinated. This included health workers, high risk contacts, contacts of contacts and probable (ibid).

The World Health Organization works to prevent Ebola outbreaks by "maintaining surveillance for Ebola virus disease and supporting at-risk countries to develop preparedness plans" (WHO 2021c). In that matter WHO in 2021(d) presented risk reduction measures to reduce transmission in humans:

- "To reduce the risk of wildlife-to-human transmission from contact with infected fruit bats or monkeys/apes and the consumption of their raw meat. Animals should be handled with gloves and other appropriate protective clothing. Animal products (blood and meat) should be thoroughly cooked before consumption.
- To reduce the risk of human-to-human transmission from direct or close contact with people with Ebola symptoms, particularly with their bodily fluids. Appropriate personal protective equipment should be worn when taking care of ill patients. Regular hand washing is required after visiting patients in hospital, as well as after touching or coming into contact with any body fluids.

- To reduce the risk of possible transmission from virus persistence in some body fluids of survivors, WHO recommends providing medical care, psychological support and biological testing (until two consecutive negative tests) through an EVD survivors care program. WHO does not recommend isolation of male or female convalescent patients whose blood has been tested negative for Ebola virus.
- Continue training and re-training of health workforce for early detection, isolation, and treatment of EVD cases as well as re-training on safe and dignified burials and the IPC ring approach.
- Ensure availability of PPE and IPC supplies to manage ill patients and for decontamination
- Conduct health facility assessments ("Scorecard") of adherence to IPC measures in preparedness for managing Ebola patients (this includes WASH, waste management PPE supplies, triage/screening capacity, etc.)
- Engage with communities to reinforce safe and dignified burial practices" (WHO 2021d)

4.3 Flood disasters in Kerala

India is one of the countries in the world with the most floods due to heavy monsoon seasons, "silted river systems, and steep mountains" (Varughese and Purushothaman 2021, 16). As climate change have introduced more rapid natural disasters, floods have become one of the most common disasters. Caused by a combination of heavy weather and human factors, the risk of floods and flash floods have increased due to global warming. Flash floods are even more dangerous as they are unpredictable and can appear in a short period of time (ibid).

The climate in Kerala is tropical and includes rich monsoons. The state has a divided topography with rivers, highlands with steep hills and rainforests, coastal areas, and mid plains areas (Kerala Government 2021c). Together with Kerala's topography, the two monsoon seasons are additional risk factor, making the state even more vulnerable for climate-induced natural disasters. Floods are one of the most common natural disasters in Kerala, and in 2018, Kerala experienced a flood reported as "the worst natural disaster in a century" (Varughese and Purushothaman 2021, 18). The flood was a result of unusually high rainfall between June 1st and August 19th 2018. The rainfall consisted of 42% more rain than expected, turning the streets of Kerala into rivers. The overwhelming amount of water

resulted in “the saturation of top soil, powerful surface and river overflows, deep landslides, and soil erosion, causing substantial loss of human life, livelihoods, property, and infrastructure” (ibid). The flood affected more than 5,4 million people, where 1,4 million were “displaced from their homes” and many sheltered in one of the 3200 relief camps set up across the state. It costed nearly 498 people their lives, and over 20 000 houses were damaged (ibid).

Kerala was not prepared to manage the 2018 floods, and it has been known that the flood forecasting and warning systems did not predict the right amount of water expected. The data showed consistently numbers below the actual rainfall for months (Varughese and Purushothaman 2021, 23). However, the government of Kerala (GoK) together with Kerala Disaster Management Authority was quick with the post-flood respond and ensured a “rapid and effective evacuation, rescue, and relief operation followed by rehabilitation and reconstruction” (ibid, 24). Further the relief camps were run efficiently with “adequate provision of food, water, and sanitary facilities” (ibid).

The rescue mission was assisted by “the National Disaster Response Force, the Army, Air Force and the Navy” (Varughese and Purushothaman 2021, 25). Together they rescued humans stranded by the flood, they built temporary roads and bridges. The rescue teams were also complemented by volunteers that both contributed through fieldwork, but also trough providing relief services like “relocating elderly, installing bio-toilets, cleaning and sanitizing houses etc.” (ibid, 25). The Department of Health and Family Welfare was in charge of the provision of health care during the flood. They ensured that medically trained personnel and necessary medicine were available for those in need (ibid, 26).

Social media became an important matter in the crisis management. During the floods WhatsApp, Facebook and Instagram were found to be important information channels for the inhabitants of Kerala. Also flood alerts were provided through social media, together with traditional media (Varghese and Yadukrishnan 2019). Volunteers used social media to “receive messages from family members of stranded persons and passed on the messages to control rooms and rescue teams” (Varughese and Purushothaman 2021, 25). In addition did the GoK, officials and celebrities use social media for spreading information and prevent spread of fake news (Varghese and Yadukrishnan 2019).

The flood management was provided by the government, nongovernment agencies and citizens who volunteered, all working together to provide emergency health care and disaster mitigation. This model seems to be successful for Kerala as the organizations collaborated into making the efforts provided "transparent, responsive, effective, and efficient" (Varughese and Purushothaman 2021, 30). Varughese and Purushothaman (2021, 30) explains that the success factor was that the collaboration "ensures buy-in from the population, rapid dissemination of accurate and reliable health information, compliance, and swift reach and execution, even in the proverbial last mile". The willingness and effort of the volunteers, together with the collaboration between organizations has been highlighted as a factor of success in the mitigation of health impact of the natural disaster (ibid).

5 Theoretical framework

5.1 Welfare and welfare state

5.1.1 Welfare

To explain and define a welfare state, we first have to understand the term 'welfare'. Greve (2019, 16) defines welfare as:

> "… the highest possible access to economic resources, a high level of well-being, including the happiness of the citizens, a guaranteed minimum income to avoid living in poverty, and, finally, having the capabilities to ensure the individual a good life."

The definition highlights the importance of welfare being "related to aspects of the greatest importance for individual's lives" (Greve 2019, 17). When further explaining the term 'welfare' Greve (2019, 15) present four different aspects divided into two main levels, macro and micro. The macro-level explains state and market, while micro-levels explains civil society. Further the two levels are divided into subjective and objective perspectives. On the macro-level the subjective perspective of welfare is connected by trust in the government, while the objective perspective reflects the level of production "often measured objectively by GDP per capita". The subjective perspective on the micro-level can be explained with "the perception of being poor", while the objective perspective measures "the number living at risk of poverty" (Greve 2019, 15).

Hamlin (2008, 2) presents three features regarding welfare in an economic perspective; individual welfare, social welfare and the relationship between the two. At an individual level of welfare, it is the satisfaction of the individuals desires that are the main focus. Individual preferences and satisfaction can differ from person to person, but in the case of individual welfare it must be understood to: "include preferences over alternative social arrangements, over alternative distributions of income; most generally over alternative states of the world" (ibid).

While the individual welfare focuses on the individual desires, the social welfare is the "ethical value or 'goodness' of the social state under consideration" (Hamlin 2008, 3). It is supposed to "identify the overall good of society", and not only as an aspect of the good. Still, social welfare depends on individual welfare since "the good of society depends only on individual welfare" (ibid).

Welfare is often connected to economic and sociologic theories as presented, but it can also be connected to need. The two main aspects connected with focusing on need, is standard of living and quality of life (Greve 2019, 18). The OECD (n.d.) have developed 11 topics and indicators that measures quality of life and welfare. The list presents elements that is important to be able to understand welfare:

- Housing (rooms per person, dwelling with basic facilities, housing expenditure)
- Jobs (employment rate, long-term unemployment rate, average earnings, job security)
- Education (years in education, educational attainment, students' skills in reading math and science)
- Civil engagement (voter turnout, stakeholder engagement for developing regulations)
- Life satisfaction
- Work-life balance (employees working hours, time devoted to leisure and personal care)
- Income (household disposable income, household financial wealth)
- Community (quality of support network)
- Environment (air pollution, water quality)
- Health (life expectancy, self-reported health)
- Safety (feeling safe walking alone at night, homicide rate)

(OECD n.d.)

As OECD (n.d.) explains, it is possible to measure well-being. The 'better life' indicators presented point "to certain areas of greatest prominence for the individual's life and society's functioning" (Greve 2019, 23). If individuals tries to describe their well-being based on these, it will give a good idea of how their quality of life is and how happy the inhabitants are. Because happiness often is connected to factors like "the strength of social support, the absence of corruption and the degree of personal freedom", the connection between happiness and quality of life are valid (ibid, 26). This also explains why some dimensions of equality is connected to welfare.

Hamlin (2008, 16-17) argues that there are no significant relevance between the welfare and the idea of equality, even though it is a common thought. Equality as the same opportunities for health care, education and so on, can be related to welfare. Equality of resources, respect and/or other dimensions is not directly connected to welfare. To explain how equality can be understood regarding welfare, the quote from Mau and Verwiebe (2010, rendered in Greve 2019, 151) can help illustrate:

> "The unequal distribution of recourses like income, wealth, prestige, and power is termed social inequality. These unequally distributed resources yield further advantages or disadvantages and accrue to individuals as a result of their position in the social structure and in social networks."

There are questions regarding equality that are important to acknowledge when explaining the term: "how should we interpret equality and inequality" and "should one look into a short time period or intergenerational differences". Greve (2019, 152) further splits the questions of equality into four: (1) equality of opportunity for welfare, (2) equality of opportunity for resources, (3) equality of welfare and (4) equality of resources. To understand how welfare works regarding equalities and inequalities, these four approaches must be seen in the context of each other and the two questions.

Welfare can be explained through both sociological and economic perspectives, and aspects regarding equality and quality of life. All agreeing that welfare and well-being are goods for the society. To achieve "the highest possible level of welfare for citizens in a country", both

social policies and welfare states can be used as instruments (Greve 2019, 17). Earlier the market was left to itself to provide services or economic security for citizens, but with a market failure, the development of a welfare state has been crucial. To achieve "a higher level of welfare and enhance the ability to achieve it" there has to be some framework (Greve 2019, 18-22). The welfare state can be used to establish this framework and ensure higher welfare throughout the populations.

5.1.2 Welfare state

Sinn (1994, 1) explains the theory of welfare as an insurance system or risk reducing function for the inhabitants of a state. The system is financed through a tax system financed by public goods and transfers. Governments often sets a higher tax rate for richer inhabitants, than for the poor, which also helps reduce inequalities in the communities.

The term 'welfare state' refers to the role of the state in welfare questions and functions like poverty relief, education, housing, health, social insurance, and other social services. More concrete, the tasks of a welfare state can be divided into "redistribution, social investments and intergenerational transmissions", together with "coping with market failure" and finding ways to "help individuals in cases of social risks and for different groups" (Greve 2019, 32). In other words, the welfare states tries reducing the "risk of market failure, ensuring a decent living standard and a certain degree of equality and intergenerational distribution" (ibid).

A welfare state can be explained as a state that uses its power in an organized way to modify the play of the markets force. This is done by "guaranteeing individuals and families a minimum income irrespective of the market value of their work or their property", by "narrowing the extent of insecurity by enabling individual and families to meet certain "social contingencies" which lead otherwise to individual and family crisis" and by "ensuring that all citizens without distinction of status or class are offered the best standards available in relation to a certain agreed range of social services" (Briggs 1961, rendered Goul Andersen 2012, 4). In other words, the welfare state tries to mitigate poverty, provide social security and services like health care, child and elder care. To make the standards as high as possible, the state implements different framework that will modify the impact of the free market. How the states choose to weight the different factors varies from state to state (Goul Andersen 2012, 4).

Roughly outlined, the welfare state extends from child care to elderly care, and works as an insurance system that protects against social risk that can accrue through life. The welfare systems can be organized and structured differently, but it has a common focus to "have an impact on and intervention for people in a given society" (Goul Andersen 2012, 33).

Goul Andersen (2012) presents three different principles of welfares: the residual, universal, and corporatist welfare models. The corporatist model can also be referred to as 'the social insurance model'. As the label 'corporatist' denotes, the insurances are often administered jointly by representatives of the employers, the workers, and the state. The model was introduced in the 1880s by the German chancellor Otto von Bismarck as mandatory social insurance. It was financed mainly by social contributors paid by workers and their employers jointly. In the implementations of the corporatist model, the schemes covered only particular categories of workers, but it changed after World War II, when the coverage gradually extended to embrace the majority of the working population. The schemes mainly focused on pension and security, rather than equality (Goul Andersen 2012, 6).

While the corporatist model's source of financing was contributions, the universal welfare states' source of finance were taxes. It has its origin from Denmark, where the scheme was "targeted at old people who could not provide for themselves" (Goul Andersen 2012, 6). The scheme included all citizens, not only manual workers, which was usual in the early days of the German corporatist schemes (ibid).

Residual welfare states are "based on the conviction that people should handle most of their welfare needs themselves; the role of the state should mainly be confined by providing a safety net for the poor" (Goul Andersen 2012, 7). Typical characteristics for the universal and residual welfare model is that they are meant as support for the poor, they are tax-financed and for all citizens, but according to need. The universal model were "gradually extended to all citizens" where the residual model "still targeted the poor" (ibid). The corporatist model, on the other hand, was "mandatory social insurance financed by social contributions" and "typically for employed manual workers" but was "gradually extended to all social groups at the labor market" (ibid). While the residual model workers like a safety net for the poor, both corporatist and universal welfare models workers as a social insurance system that takes care of "social risk and services for most of the population throughout the life course" (ibid).

Sinn (1994, 1) explains that "the historical growth of the welfare state can, in part, be seen as a response to the private insurance system's inability to offer the cheaper solution." In modern times, the three welfare regimes presented by Goul Andersen (2012) are still valid and different countries use the different schemes. The universal and residual welfare states are managing the schemes in similar ways, while the countries using the corporatist model finds huge variations on how the schemes are administrated.

Recent years the welfare state has played a "key role in people's everyday lives" in developed societies, while there have been discussions on "how and to what degree the state should intervene, influence and have an impact on the development of society, including on the market and civil society" (Greve 2019, 1). There has been a transformation on how the welfare state works after "global financial crisis, demographic change and changes in the perception of the state's role in relation to social welfare" (ibid, 3). Going through a pandemic would also affect the role of the welfare state. The transformations can make new challenges both for the state itself, and for individuals. Greve (2019, 4) explains this by stating:

> "New risks and new challenges for individuals in welfare states also mean that there might be a conflict between various kinds of needs in different sectors and parts of the economy, and that these are changing over time. Thus the balance between the state, the market and civil society, and also within and between different aspects of the welfare state's services and income transfers has been constantly reconstructed, including who has which responsibility and who is expected to finance and/or deliver different types of welfare transfers and services."

From concentrating on income transfer, towards "offering more services beyond health care", and further towards better services regarding care for children and elderly, there are no questions that the development of the welfare state has been through huge changes over the last 30-40 years (Greve 2019, 4). The comprehensive changes causes questions regarding the role of the welfare state, and to whom the services should be provided for, "of what quality and under what conditions" (ibid). Questions also appear regarding the balance between the market and civil society, and what should be delivered by whom (ibid).

Considering a welfare state, we could argue that there are no political thoughts behind the choices made, and that the main commitment with state welfare is to ensure the individual

welfare. The commitment is connected with the individual's welfare being held over a certain level without any social or aggregate measures that benefits politics (Hamlin 2008, 11). Still, we know that choices states makes regarding welfare often are connected to politics, especially concerning goods and how to make welfare feasible for the whole community.

Hamlin (2008, 11) presents three types of political commitment to welfare explaining how the best way to handle goods is to maximize it through: simple maximization, maximization with minimum constraints, and maximization with equality constraints. Simple maximization goes with the thought that no one is supposed to suffer from other having more welfare. The welfare might be maximized by individual, but it should not be a trade-off between individuals (Hamlin 2008, 11). Maximization with minimum constraints identifies "the lowest level of individual welfare which will be tolerated, and thus constrains the maximization process in either its individualistic or social form" (ibid). We can assume that individuals will have their own thought of what the minimum is to still be able to count it as welfare. Maximization with equality constraints can be thought of as "building inequality aversion into the commitment to welfare" (Hamlin 2008, 12). With the equality constraint we identify how great inequality that will be tolerated between humans. The equality constraint will therefore naturally have restrictions in the maximization of both individual and social welfare.

5.1.3 Welfare regimes

Welfare regimes can be used to compare how countries implements welfare initiatives and how they carry it out. We operate with three ideal worlds of welfare capitalism: social democratic, conservative, and liberal (Greve 2019, 40). The social democratic world of welfare capitalism is characterized by "a comprehensive system of social protection", including a high level of social services. The social security system is financed by taxes, and the state is pursuing active labor market policies, with high labor force participation of women (ibid).

The conservative world of welfare capitalism is characterized by "the generous occupational benefits: unemployment and disability insurance schemes for (former) employees", and can sometimes be referred to as 'corporatist welfare states' (ibid). Women and elderly men have a lower participation through the labor force. The traditional male is usually the main breadwinner with "protective services for children and parenthood, relatively high child benefits and long-term pregnancy, childbirth and parental leave" (ibid).

In the liberal world of welfare capitalism, the state regimes can be characterized as 'residual'. Benefits of the social security system is relatively low with limited duration. Social assistance schemes are means-tested, and there is a "relatively low flat-rate state benefit" which is a characteristic of the financed social security. There are few public facilities for parents and children, compared to the social democratic regime. The liberal regime has a higher labor participation rate of women than the conservative regime, but lower than the social democratic regime (Greve 2019, 40).

The social democratic, liberal, and conservative welfare regimes are used in different countries. The Nordic countries in Europe follows the Social Democratic regime, while the central part of Europe and some countries outside of Europe, like Japan, follows the Conservative regime. Countries like New Zealand, Australia, UK, USA, and Canada follows the Liberal regime (Greve 2019, 41). There are discussions whether these three regimes can embrace all countries, and all countries will not fit exactly into one of the models. Still, they can be used to give an "initial idea about what a country's welfare model can be expected to look like" (ibid). Greve (2019, 40) presents one of the repetitive critiques of welfare regime typologies:

> "The regime typology is gender blind, for not including an analysis of the role of the family, and for an imprecise choice of data which focuses on public welfare but not on other types of provision."

Even though the theory of welfare regimes is based mainly on European countries, it can be used as better understand "why welfare states look the way they do" and to help us see the possibilities of further development in other countries (Greve 2019, 57). Historical traditions, development, and present political ideology will all influence a country's welfare regimes. Still similarities between countries exist and can make it possible to draw some lines between different welfare regimes and categorize them (ibid, 47).

Historically, welfare states have coped with "the risk for individuals or families of lack of sufficient income in the case of unemployment, old age, sickness, and work-injury" (Greve 2019, 52). Later years the term 'social investment' have been introduced, as a way to explain that investing in welfare services, will be a further investment in social development. For example, through investment in education, which further supports economic growth and job

creation. With promoting economic growth and job creation, there is a further investment in social welfare as many of the welfare initiatives are dependent on economy (Greve 2019, 52-53).

5.1.4 Health care in welfare states

One of the important components of the welfare states is health. Beckfield and his colleagues (2015, 5) explains that "the welfare state clearly plays a key role as mediator in the influence of the material, and social determinants of health and health inequalities". Health and health care is important for all people throughout life, and everyone will at one point in their lives be in need of health care (Greve 2019, 191).

The three different welfare regimes (liberal, conservative, and social democratic) have different strategies regarding health care. For examples does the infant mortality rates vary regarding to which welfare regime followed in different countries. Around 20 percent of the of the differences can be explained by the welfare regimes the countries follows, and the highest rates are in Liberal countries and the lowest is in Social Democratic Scandinavian countries (Beckfield et al. 2015, 6).

Greve (2019, 192) presents two different types of health care systems: the Beveridgean and the Bismarckian type. The Beveridgean type of health care is financed through general taxation, while the Bismarckian scheme is financed through compulsory health insurance. Still, there can be variations in terms of how these two types of health care are financed as well. It can be through private insurance, social insurance, or general taxation. Other things that varies in health care are:

> "the role and level of co-payments for treatment, the role and level of prevention, the extent of provision – what has been collectively termed 'health care decommodification', and how patients' access to health care providers is regulated." (Beckfield et al. 2015, 22)

In general, health care is financed through either government schemes (taxes and duties), out-of-pocket or compulsory and/or voluntary health insurances. Even though the government health care schemes through taxation and compulsory health insurances are the main financial

providers, the out-of-pocket spending is also relatively high in welfare states (Greve 2019, 196).

A challenge regarding health care for welfare states is when new diseases appear that are difficult to cure and research is necessary to understand how to cope with the disease. Relevant examples are the viruses Ebola, Nipah and Covid-19. Another aspect is that new types of medicine and technology makes it possible to fight diseases that previously was not possible to cure. As new medicine and technology are often very expensive, there is an evaluation system called Quality Adjusted Life Years (QALY) that tries to measure "how much better and longer life can be when using the new medicine", and then comparing it to the cost of the treatment (Greve 2019, 199). QALY is necessary as a tool to manage the cost of health care and to ensure that the most effective type of medicine is used. It is important that the health care system is run in such a way that treatment is cost effective and that unnecessary treatment is avoided (ibid).

There is a universal agreement that health care is important, and most citizens of welfare states argues that there should be spent more government money on health care (Greve 2019, 198). When a government has a well-functioning health care system, the population's health gets better and health inequalities decreases (Beckfield et al. 2015, 5). Health inequalities are affected by whether the population have "quick and easy access to treatment, as well as having the option to understand messages about how to live a healthy life" (Greve 2019, 193). The life expectancy increases for inhabitants in countries that spend more money on health care (ibid, 195).

Life expectancy is in general higher in welfare states. In Europe the average life expectance is 81 years, and it is higher for people with higher level of education and income than for people with low income or that that are unskilled. This is regardless of what type of welfare regime the country has applied (Greve 2019, 192). To provide a good public health and increase the life expectancy in a society, there has to be access to clean water and hygienic sanitation systems, healthy food, education, housing, and of course access to health care (Beckfield et al. 2015, 21-23).

Education is one of the major determinant, after health care, to ensure a good public health and to decrease health inequalities. Education is an important determinant to help people out

of poverty, and to improve the chance of getting a job with good working conditions. A more secure economy will further affect other components of public health like the ability to purchase nutritious food, ensure safe housing and better opportunities for social participation. Higher education also affects health directly through increased knowledge on how to take care of their own health and having better access to medical care. In a more indirectly perspective, the jobs for higher educated people often results in a higher income and a lower level of stress as they have a more privileged lifestyle. In that way "education may be a crucial factor in determining whether other social or health policies are successful in reducing health inequalities" (Beckfield et al. 2015, 22-24).

5.1.5 Welfare states and regimes in the Global South

Öktem (2020, 103) presents questions of "when is a welfares state a welfare state" and if welfare states are a European invention. Research and analysis of the welfare states and welfare regimes are often strongly influenced by perspectives from Europe, North America, New Zealand and Australia. However, there are welfare states and social democracies outside these countries and continents as well. Törnquist (2022, 15) compares social democracy in the Global South and Scandinavia and shows that democracy is "commonly thought of as popular control of public affairs on the basis of political equality, and democratization as the process of getting there". Social Democracy can be explained as having "a wide stream of ideas, arguments, organizations and movements" that have been changed and advanced over the years and context (Törnquist 2022, 17).

There are three generations of Social Democracy, where the first one is based on the industrialization that found place in the North in the nineteenth and early twentieth centuries. The first generation was recognized as being passive with various politics, and ambivalent about colonialism. Some thought that the development of countries in the Global South was held back by colonialism and their authorities, while others thought colonialism might "contribute to the spread of capitalism, which had to precede socialism" (Törnquist 2022, 19).

The second generation of Social Democracy are in the subordinated countries and the colonies. Activists framed their struggles and actualized "equal civil and political rights and a culturally unified federal state" combined with pointing out the social and economic issues of class (Törnquist 2022, 19). They stated that combating underdevelopment through party and state-led paths were indispensable, before adjusting to the new democratic systems in the

early 1950s when it was proved feasible (ibid). Around this time, "the globalization of finance and production began to generate economic growth in parts of the Global South" which also strengthened the democracy (Törnquist 2022, 20).

The third generation of Social Democracy are more critical to "political shortcuts to progress". Törnquist (2022, 20) explains that:

> "The new priority of the third-generation moderates was combining liberal economic growth with welfare. Meanwhile the radicals emphasized equal citizenship, bottom-up democracy and social rights as foundations for inclusive development. Few of them rejected the importance of political parties, but they were often more active in Civil society organization's (CSOs), radical trade unions and numerous social movements."

In order to provide this, the third generation wants a decentralization of the government (Törnquist 2022, 294). Although the three generations have their differences, they have four common cornerstones that together describes what Social Democracy is: "popular-interest collectivities, democracy, social rights, and development based on these" (Törnquist 2022, 20).

The different approaches of welfare regimes that have accrued through parts of East and South-East Asia, Latin America, and the Sub-Saharan Countries, are often characterized in different ways than the known more western regimes. For instance does the Sub-Saharan approach often have "low state involvement due to lack of economic resources, and instead a high reliance on family, local and religious communities", which results in poor social protection for the population. There is also common that there is a dependency on migrant workers or donor-countries money to be able to reduce poverty (Greve 2019, 51).

There have been different approaches to figure out which countries being a welfare state or not. Some of the conceptualizations understands the welfare state as "a sum of all social policy" or "all mechanisms which provide social protection against and redistribution of market mechanisms and outcomes" (Öktem 2020, 104). Other conceptualizes it from when certain social security programs have been adapted. This can be programs regarding unemployment, sickness, work injuries or age. Ötkem (2020, 106) explains that "only a handful of countries do not have at least two programs" out of these four, and in some

measurement standards we could then say that most countries are welfare states due to social security legislations. However, a frequent challenge is that countries in the Global South legislates social security programs that are not properly implemented, so they only exist on paper. This makes it challenging to categorize countries as welfare states based on only legislations (Öktem 2020, 104-105).

Even in the Global North there have been difficulties in how to measure and define what a welfare state is, as a result of lacking consensus on "how to conceptualize, operationalize and measure change within welfare states" (Dorlach 2020, 769). The process towards developing a measuring tool directed to welfare states, have had its fundament in social security, with focus on health and education. Especially in the Global South these factors are particularly important in the measurements of welfare (ibid). Still, there has been a need for further development into variables that can help develop welfare states. Dorlach (2020, 771) identifies nine variables that theoretically and empirically shapes the expansion of general welfare:

> "(a) economic development, (b) fiscal capacity, (c) democracy, (d) partisan ideology, (e) labor unions, (f) social mobilization, (g) cultural homogeneity, (h) institutional architecture, as well as (i) welfare rights and norms."

To explain welfare states expansion in a multi-casual way, scholars often combine two or more of these variables (Dorlach 2020, 771). Several of the countries in the Global South have had an economic growth over the last decades, which have resulted in a stronger focus on welfare programs and ensured rapid social development (Greve 2019, 51).

In respective parts of the Global South, social welfare is limited to health and education services (Cammett and MacLean 2011, 4). However, countries in the Global South have implemented policies that are not necessarily included in the more Western welfare models as well. These policies could be conditional cash transfers, provident funds, affirmative action programs, price subsides, micro-credit, and social pensions (Gough and Therborn 2010, 752).

Even though there have been an increase in welfare programs and so on, there are several challenges and threats towards well-being in the Global South. Gough and Therborn (2010, 751-752) presents some of the threats to include disease and ill-health, malnutrition, poverty,

unstainable population growth, urban amenities, existential inequalities, old age, finance, and climate change. Climate change is a threat that have become more relevant over the last decades. The implications of climate change affects the more tropic and subtropic countries, which we often find in the Global South. Welfare and social policies are in many ways connected, and social policy is often defined as "the public management of social risk" making climate change a definitive threat for the welfare in a state (Gough and Therborn 2010, 753).

The emergent welfare states that we find in the Global South often have a "higher reliance on civil society, especially the family, given the limited economic resources available" (Greve 2019, 51). We could see that some of the demographic bigger and populous countries, like China and India, are facing problems regarding health care and pensions. Still, the countries have to be seen through the light of being in a phase where they are developing the welfare state, and the economic opportunities available (ibid).

Therborn (1984, rendered in Öktem 2020, 105) explains that a definition of welfare states can be boiled down to those states that "devote more than half of all government expenditures to social policy". With that mindset, countries with a higher gross domestic product (GDP) will have an advantage in terms of developing as a welfare state compared to countries with a lower GDP. In Europe, the welfare programs have had a growth in proportion to a growing GDP, especially regarding health (Greve 2019, 195). However, GDP does not necessarily reflect the welfare of a state regarding society's wealth, well-being and happiness, but it is "an indicator of what economic options a country has available for both private and public consumption" (Greve 2019, 44).

When basic social services are provided, people also improve their well-being which also helps minimize inequalities in the society. This also applies to countries with high levels of inequalities and a lower GDP level which have been able to "improve the well-being of their populations by implementing or facilitating the institutionalization of effective basic social welfare services" (Cammett and MacLean 2011, 8-9). Well functionating social welfare services could also increase the GDP per capita in the long run.

5.1.6 Criticism of the welfare state

Although there are multiple positive outcomes from welfare states, there has been criticism regarding welfare systems as well. Sinn (1994, 2) explains that when inhabitants are "protected by the welfare state, people may neglect to take the necessary care, may take too much risk, and end up in a worse situation than without such protection". Ervasti (1998, 288) presents three major points of criticism towards the welfare state systems, (1) excessive bureaucracy and inhabitants having little influence regarding their own social security, (2) social security fraud, and (3) heavy taxation and overly extended and unfair income redistribution.

The criticism of bureaucracy and lack of popular influence is based on the thought that there are no room for inhabitants to influence the system, and that they have a minimal impact on their own social security. The criticizers also point out that bureaucracy give extra cost, that social security systems should be simplified to reduce costs and improve efficiency, and that too much money is spent on administrative work. The welfare state are dictated by legislation and administrative regulations, as the bureaucracy makes "decisions on behalf of the citizens and seldom offers them more than one option" (Ervasti 1998, 288).

Regarding social security fraud, the criticism also calls attention to the belief that the social benefits are too easy to obtain, and that it is possible for people who are not entitled to them, to still claim them. The benefits are too attractive and advantageous compared to earned income, making the system dependent on people being encouraged to work and contribute towards the welfare state, rather than benefitting from the social security system with minimal effort. The criticism regarding social security system points out that "the welfare state encourages to fail, not to succeed", which emphasizes the problems with the legitimacy of the welfare state. The willingness of people contributing towards the welfare state decreases if they see that many "free-loaders and work shirkers" are supported by the social security systems (Ervasti 1998, 289-290).

The welfare state is mainly financed by taxation, and when "the welfare state is too bureaucratic, too generous and too easy to abuse, it may easily develop into an excessively expensive enterprise demanding higher and higher tax revenues" (Ervasti 1998, 290). When taxation becomes too heavy, work ethic and the willingness of working overtime might decrease. If the supply of labor declines, the tax revenue will also decrease. Another challenge

is that the relation between the welfare state and taxation is not always distinct for inhabitants, making them call for tax cuts and better public services at the same time. Still, there are no guarantee that reducing social security lowers the levels of taxation, or the other way around, higher taxation does not guarantee for a better social security system (ibid).

The welfare state has often been criticized for focusing on income transfers, and being blind to "gender differences in the focus of what the welfare state is financing and delivering" (Greve 2019, 42). Other critiques are based on challenges regarding the classical functions of the state and the expanding role of government, which also includes the social costs of welfare, the impact on the civil society, markets and government, and how it affects the individual welfare and happiness. There is raised question about the state having a resigned assignment to preserve the inhabitants with social security systems and all connected to welfare and social security, or if that is the assignment for inhabitants themselves to ensure (Sandmo 1998,15).

Ervasti (1998, 290-291) presents different aspects of why people raise criticism towards the welfare states. Possible backgrounds for criticism can be political affiliation, age, gender and sector of employment, and stratification hierarchies. Criticism due to political affiliation is based on that inhabitants on the political left often hold a more welfarist attitude than those on the political right. The aspect of age is that the older generation often favor to oppose the welfare state, while the younger wish to dismantling it. This can be connected with that the middle-aged and elderly are becoming pensioners with the welfare benefits, at the expense of the younger inhabitants.

Regarding gender, women are more often employed by the public sector than men. This, together with being more dependent on the welfare state due to often being the family member responsible for "most of the hard but still unrewarded care work" (Ervasti 1998, 290-291). The stratification hierarchies criticism is based on that socio-economic background factors affects the attitude towards welfare states. Educational attainment, income and occupation can affect whether the inhabitants think they are "paying more for social security than they are benefiting from". Still, in some welfare systems, like the universal Scandinavian welfare state, people of higher education, income and occupational status "are also covered by the services and income maintenance programs", which explains the high legitimacy (ibid).

In Greve (2019, 42) we find four questions to be used in answering criticism and analyze how the different welfare system are working by asking: “Is the support to be offered over a short or long time? Is it for people of working age or the elderly? Is it related to the level of poverty? How to ensure that data are the same quality and validity in all countries analysed?”. When using these questions, we get a more methodological point of view in the discussion and criticism regarding welfare states.

5.1.7 Positive and negative sides of welfare states

Welfare states are well discussed and if they are needed or not will be a discussion long lasted. Sandmo (1998, 15) explains parts of the benefits of welfare states by stating:

> “There may be projects that are not profitable for any single individual to undertake, but which it would still be profitable for a group of individuals to undertake collectively, investment in transportation infrastructure is one of several obvious examples.”

As we know from section 5.1.6 ‘the criticism of welfare states’; bureaucracy, social security fraud, taxation, gender discrimination, and an expanding role of the government are topics engaging in how the welfare states develop. Some of the arguments for the welfare state are that they have a better safety net and less inequality for the inhabitants through strict policies and systems (Sandmo 1998, 22). For inhabitants risk management, the social security system is crucial. The social security system works as an insurance system for inhabitants, and Sinn (1994, 2) explains this by stating:

> “It would be difficult to find entrepreneurs to supervise risky investment if the debtor’s prison were all the society provided in the case of failure. It is perhaps the most important function of the social welfare net that it makes people jump over the dangerous chasms which otherwise would have put a halt to their economic endeavors.”

There are examples of welfare schemes that has both positive and negative sides. For example insurance for risk in the workplace can help giving a higher level of production productivity, since there is a better safety net if something goes wrong in the production line. Still, by being protected by the welfare state through the social security system, inhabitants might take too

much of a risk, and neglect selfcare because they know that they have an insurance system that will back them up. In that way people could end up in worse situations than if they did not have the welfare state protection (Sinn 1994, 2-11).

Another example is the intervention of minimum wage. In many welfare states the minimum wage has been introduced and the intention was to "improve the standard of living for those with the lowest incomes and possible also to improve job satisfaction" (Sandmo 1998, 27). This resulted in many workers who had low income jobs, now were better off with higher earnings. Still, another results of this intervention was that some workers lost their jobs as the minimum wage was higher than the productivity and the workers became too expensive to have employed (Sandmo 1998, 27-28).

However, the welfare state should not only provide the traditional social risks like old age, disability, illness and unemployment. Esping-Andersen (2002) explains that the states also should provide for the new social risks like "single parenthood or lack of skills causing long-term unemployment or inferior employment". It should also respond to "new social needs, such as the reconciliation of work, family life, and education, and the need to be able to negotiate changes within both family and workplace over one's entire life cycle" (ibid).

Welfare regimes regarding care for elderly and children are also closely related to increasing labor participation, especially regarding women. Both with women not having to stay home to take care of elderly and children, but also because many women work in the care professions (Sandmo 1998, 26). Of course it also opens for women to work in other professions as well. Having more women in labor would also increase the economy for the society, having more people to pay tax, and increase the families total income. Having a welfare state could provide for an increased economy through the inhabitants. As there is "a positive association between income and happiness", we could assume that people with higher income are more happy than those with low income. Still, when watching the history, there are no significant evidence of the relationship between income and happiness (Sandmo 1998, 29).

6 Analysis and discussion

6.1 Welfare systems in India and Kerala

In the past decades India has grown as a welfare state, even though the growth is small and the systems applies to a small segment of society compared to the Western world. Still, the welfare system is well implemented in multiple aspects (Aspalter 2017, 347). Aspalter (2017, 352) explains that since the early 1990s the government of India has supported "the growth of private industries in health care and social security provision". However, these private industries are beneficial for a small part of the population.

Social welfare policies can be divided into two main components; public goods and social protection. In the past twenty years, India has focused on the component of social protection, simultaneous as the public good services have languished. The rationale for the prioritizations seems to be a combination of "political, ideational, and institutional factors rooted in India's political economy" (Kapur and Nangia 2015, 73). Cammett and MacLean (2011, 4) explain that social welfare in India has been provided through a: "surprisingly diverse array of public activities, including credit programs available through rural banks, employment-generating schemes for the rural poor, and the administration of agricultural land ownership". India has been proclaimed to be a future economic giant, and they have boasted different programs for social welfare and informal security mechanisms. However, there is an absence of effective programs regarding education, health, and social protection. In fact, several countries in the Global South struggle with high level of youth illiteracy and unequal possibilities for education due to gender (Gough and Therborn 2010, 750). India spends almost four per cent of GDP on subsides for poverty, rather than investing in more long terms solutions. In comparison India spends as much on subsides for poverty, as they do on public education and health combined (Chibber and Soz 2021).

There are challenges connected to the implementations of welfare strategies throughout India, since there are "a plethora of formal and informal programs but with little realization in terms of spending, delivery or welfare outcomes" (Gough and Therborn 2010, 751). However, the responsibility for the Indian welfare is divided between the central and state governments in India, making the states responsible for their own welfare together with following some guidelines and initiatives funded by the central government (ibid). This result in different welfare regimes in the different states of India.

Kerala, with its own development model, have been one of the states that has the highest welfare in India, ranked first of all the states in the HDI multiple times (Global Data Lab 2019). Described as 'India's Scandinavia', Kerala has the highest life expectancy in the country with their positive poverty reduction, high literacy, and good quality of health care (Törnquist 2022, 63). The welfare model of Kerala can be recognized as the universal model of welfare, one of the three models presented in 5.1.2. The model is providing social welfare financed mainly by taxation and works as a social insurance system that takes care of "social risk and services for most of the population throughout the life course" (Goul Andersen 2012, 7).

When the Left won the first election in Kerala in 1957, it was not possible to "move from broad popular movements for equal citizenship and democracy plus social rights, to introducing anything comparable to the Scandinavian growth pacts between capital and labor" (Törnquist 2022, 68). However, the lefties managed to implement services throughout the time, building Kerala as a welfare state. Together with the well-known land reform implemented at the 1970s, it was introduced welfare reforms including: "unemployment relief, pensions or agricultural and other workers as well as their widows, subsidized housing, public distribution with subsidized prices of essential food, meals in schools and preschools, minimum wages and more" (ibid, 69). The reforms can be recognized from the 'social investment' regimes of welfare presented in 5.1.3. Kerala could be placed having a Conservative welfare regime, also from 5.1.3, as they have women labor participation rate of 20,4% in 2018-2019 (Phillips 2021), and the conservative welfare regime is recognized for lower labor force participation of women and elderly. Even though historical traditions, development and present political ideology all influences the countries welfare regimes, there are possibilities for drawing lines between different welfare regimes and to categorize them.

Both Kerala and Scandinavia have had similar problems regarding state-civil relations. Törnquist (2022, 70) explains that:

> "In Kerala, as in Scandinavia, the participation of different interest groups in policymaking and implementation had evolved on the basis of decades of social and political struggle. But in contrast to Scandinavia, where this struggle was rooted in pre-industrial representation of various propertied interests, and where it was made

> inclusive of all the non-propertied and democratized by liberal associations and the labor movement, Kerela's state-society relations beyond elections were increasingly dominated by parties and individual politicians and bureaucrats, susceptible to corruption."

In later years, the social and political rights in Kerala are still an important matter. The importance of education, both for development and personal life, together with the respect for different religious groups, have made Kerala stand against attempts from different political decisions that would favor Hinduists or that would weaken the welfare system in Kerala (Törnquist 2022, 212). As mentioned in 5.1.2, the main commitment in a welfare state is to ensure the individual welfare, as there should be no political thoughts behind the choices made. In April 2021, Kerala's Finance Minister at the time, T.M. Thomas Isaac, stated that the focus on 'a new edition of the Kerala Model' should be on "supplementing local public action with, for example, electronic platforms for regulated gig jobs, combined with major state-driven investments in infrastructure, education and training, along with private investments in value-added production" (ibid, 219). In that way Kerala could focus on 'internationally competitive and environmentally sustainable knowledge-based development' rather than an economic strategy based on remittances from migrant labors (ibid). Even though the main focus of a welfare state should be on the individual welfare, it is important to point out that welfare often is connected to politics as well. Most of the welfare actions of Kerala is provided for the inhabitants, but the new focus of Kerala is of course also of political knowledge. However, a success in the 'internationally competitive and environmentally sustainable knowledge-based development' would provide for better individual welfare in the long run.

The strong local government of Kerala, recognized as the third generation Social Democracy, is connected highly with decentralization (see 5.1.5). This strong local government has shown to be an advantage in the management of the Covid-19 pandemic.

6.2 Covid-19 in Kerala

The same day as WHO declared Covid-19 as a 'Public Health Emergency of International Concern', Kerala, as the first state in India, discovered the first case of the coronavirus. Despite being the first state in India to have a positive Covid-19 case, Kerala has one of the highest recovery rates, lowest death rate and slowest expansion among the rest of the Indian

states (Menon et al. 2020, 1). The Times of India reported on July 25th 2021 that so far 26 106 271 samples had been sent for testing, and 3 099 469 people had recovered from the virus, while 138 124 were under treatment. The death toll in the state were 15 970. One year later, in August 2022 the numbers had increased to 6 723 468 confirmed cases with 70 497 deaths. 55 701 243 vaccinations were administered, and a total of 28 926 947 have been vaccinated with one or more doses, making 81,52% of the population vaccinated (Government of Kerala 2022).

Sneha and Varghese (2021) presents an analysis where they compare Kerala to six major states in India from the beginning of the pandemic, to the end of January 2021. The analysis is based on numbers from Covid19India.org and shows that Kerala performed better than the other major states, especially during the first 200 days of the pandemic.

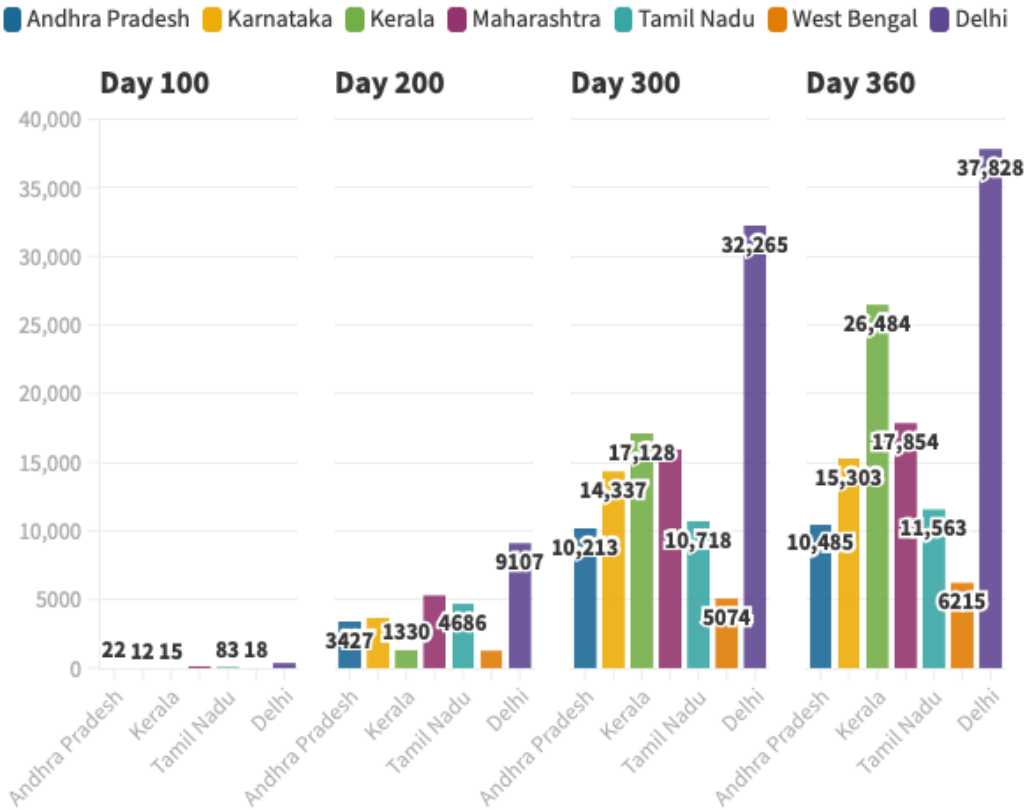

Figure 1: Cumulative cases per million population (Sneha and Varghese 2021).

In figure 1 day 100 and day 200, Kerala has few cases per million inhabitants, but in day 300 and day 360, Kerala did not manage to keep the transmission down and the number of cases increased. In both day 300 and 360, Kerala is the second highest state concerning most cases per million inhabitants. However, even though the numbers of cases increased, the death rate is rather low as seen in the figure below.

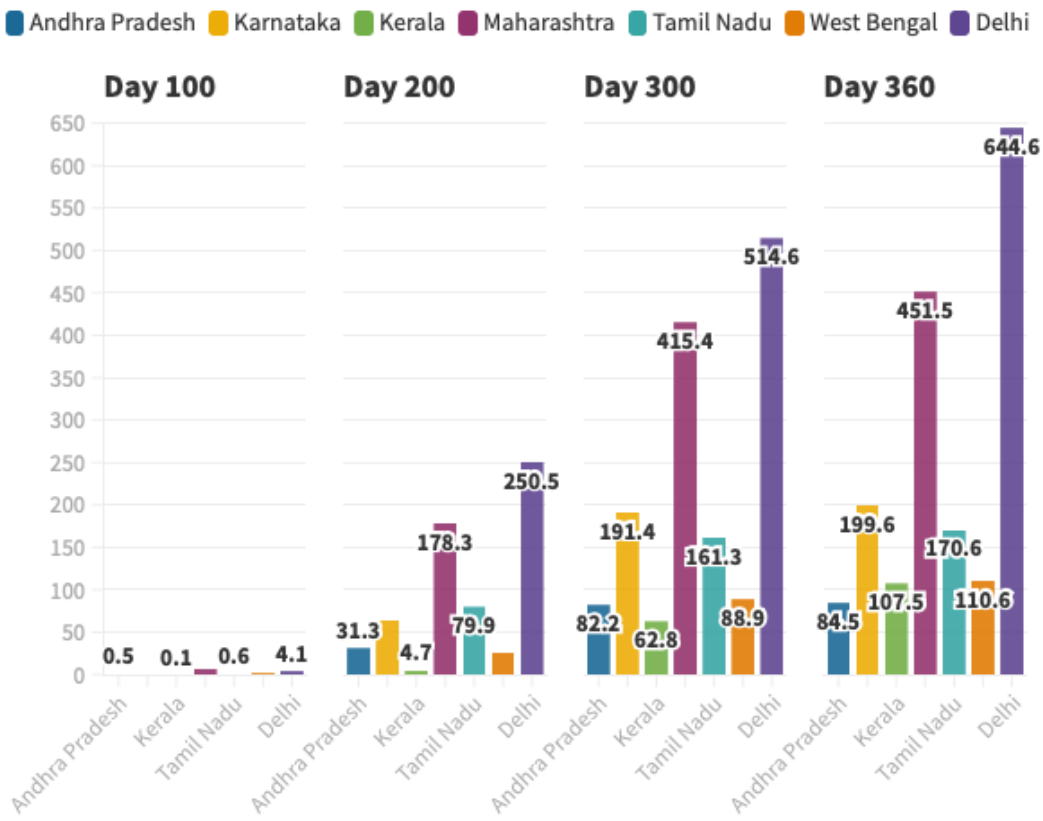

Figure 2: Cumulative deaths per million population (Sneha and Varghese 2021).

Figure 2 shows the cumulative deaths per million inhabitants. The numbers of death are low in day 100 and 200, which corresponds to the numbers in figure 1 with cumulative cases. Maharashtra, Tamil Nadu and Delhi are the states that has the highest number of cases in figure 1 for day 100 and 200, and they also has the highest number of fatale cases in figure 2. But it is at day 300 and 360 that we really see the differences between the states. In figure 1 Kerala was the second highest state in which had the most cases per million inhabitants. However, in figure 2 Kerala has the lowest cases of deaths at day 300, and the second lowest state in day 360, only beaten by Andhra Pradesh which also had much fewer cases per million inhabitants in figure 1.

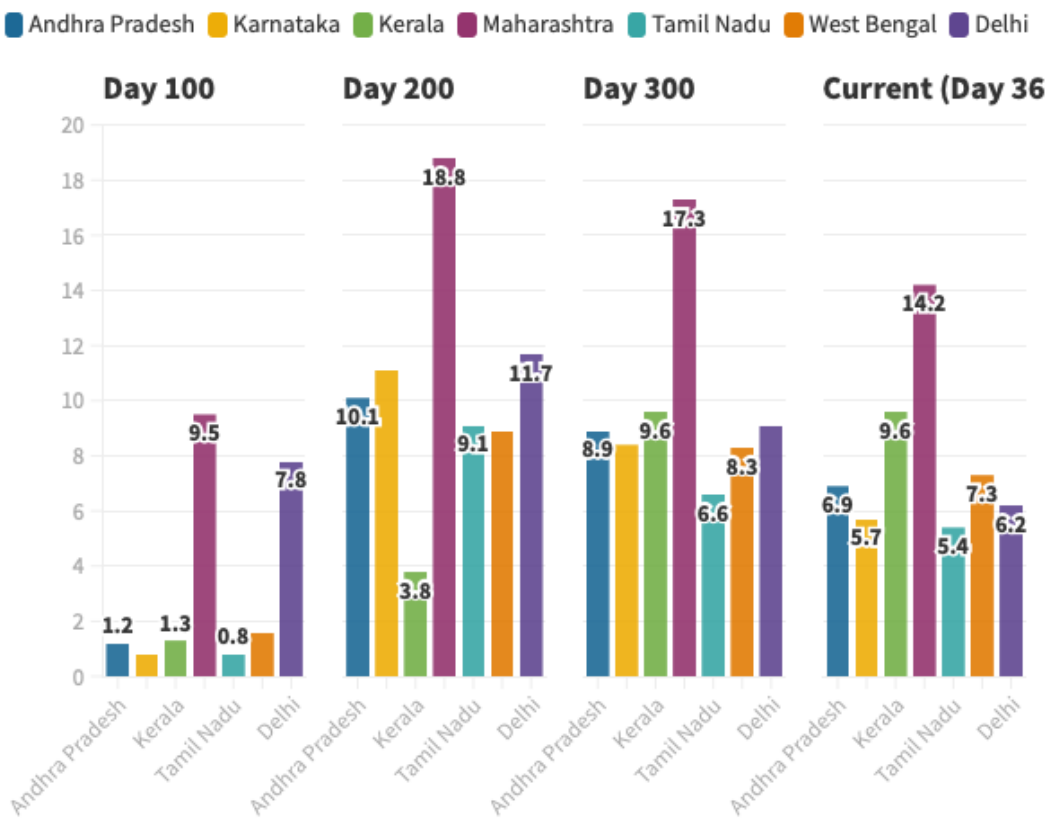

Figure 3: Cumulative test positivity rate (Sneha and Varghese 2021).

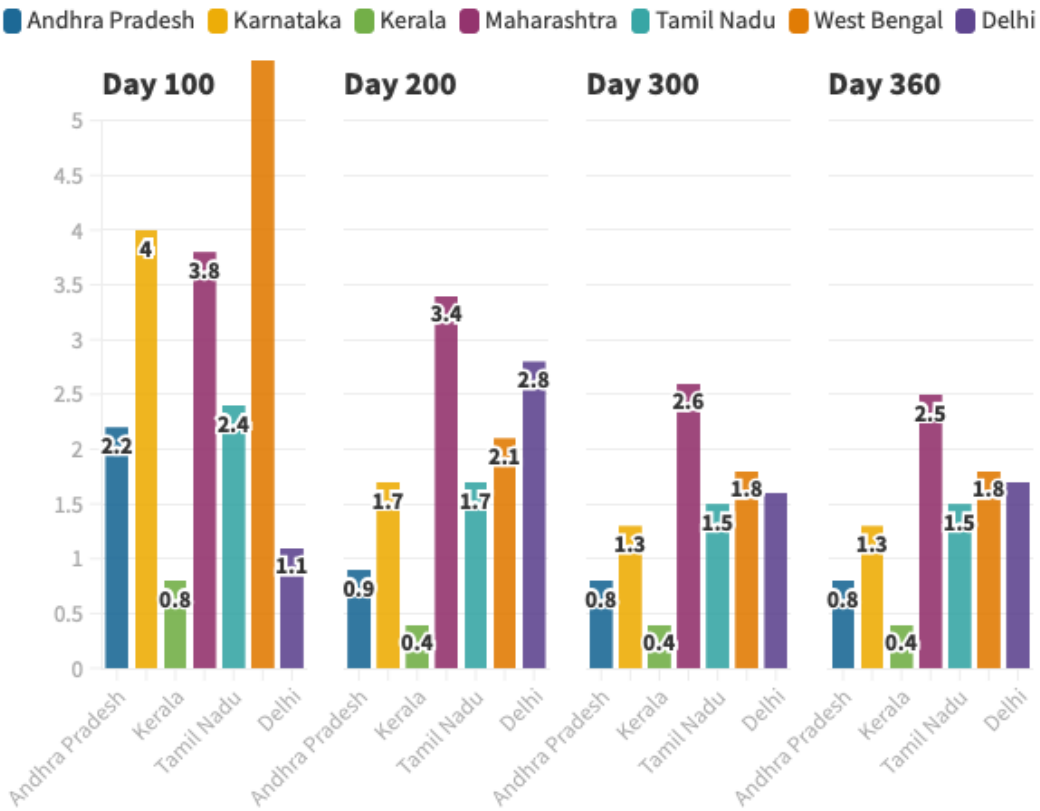

Figure 4: Cumulative case fatality rate (Sneha and Varghese 2021).

Figure 3 shows the test positivity rate in percentage of total tests and figure 4 shows the percentage of fatale results out of the positive cases. These figures combined are good indicators on how different states performed during the first year of the pandemic. In figure 3 day 100 and 200, Kerala is amongst the lowest in test positivity rate, but this changes in day 300 and day 360 where Kerala has the second highest test positivity rate compared to the other states. Only Maharashtra has a higher test positivity rate. In figure 4 the case fatality rate in Kerala remains low from day 100 to day 360. No other state keeps the case fatality rate as low as Kerala.

As mentioned in section 2.2.2, it has been known that India has under-reported Covid-numbers, included fatale results, during the pandemic. This must be accounted for in the reporting of results, but the numbers still give an indicate in the differences between the states (Sneha and Varghese 2021). The difference between the states has become even more visible after the pandemic. Even though India has grown as a welfare state, the quality of the welfare differs between the central and state governments. Kerala, as one the states with highest developed welfare has managed a better handling of the pandemic. As mentioned in section 6.1, India has included different social welfare programs, but there is an absence of effective programs regarding education, health and social protection. The problem of ineffective programs is a factor in several countries in the Global South, as many struggle with high level of youth illiteracy and unequal possibilities for education due to gender. As one of the states with the highest welfare in India, Kerala has high literacy, positive poverty reduction, and good quality of health care. This implies that Kerala's high quality in health care has had a valuable contribution in the management of Covid-19 and an important factor to the result.

Kerala has some unique characteristics making the state more "demographically and socially susceptible to pandemics" (Sneha and Varghese 2021). They do, for instance, have the oldest population in the country. The life expectancy is, as described in section 5.1.4, generally higher in welfare states. Given that the risk group of people getting seriously ill or die due to Covid-19 is for individuals over 60 and people with comorbidities, Kerala has a higher risk of fatale cases. There are also many elders with noncommunicable diseases (NCD), and the morbidity caused to NCDs are high. With having one of the highest population densities in India, the risk of local transmission is high when there are first imported transmission into the state. Kerala also has large diaspora and international air traffic, making the state in a highly risk of exposed transmission (ibid).

Still, after effectively managing the Nipah virus, Kerala could use these experiences in fighting the new coronavirus. Since the Nipah virus infection in 2018, Kerala has implemented surveillance mechanisms to look for emerging and unknown pathogens which could possibly be a threat to the state. When the coronavirus was reported from China, Kerala started to prepare for the virus possible showing up. Since China and Wuhan was the first epicenter of the disease, Kerala started with quarantine incoming people from this area and prevented further spread (Thomas Isaac and Sadanandan 2020, 35).

Already four days before Kerala had its first Covid-19 case, the Government of Kerala (GoK) released guidelines that established "case definitions, screening protocol, hospital preparedness and triage" (Sneha and Varghese 2021). A week after the first case, GoK was launching the "Break the Chain" awareness campaign. This campaign included "ubiquitously present hand washing facilities across the length and breadth of the state and the extensive efforts to test and isolate infected people and trace and quarantine their contacts" (Rahim and Chacko 2020, 261). Also, Kerala managed to frame hospital guidelines, constituted of state medical board, rapid response teams, and state control cell, for Covid-19 already in January 2020. There were also made a reference guide for hospitals to converted to dedicated Covid hospitals (Rahim and Chacko 2020, 262). On March 23rd 2020, GoK started a statewide lockdown, which was one day earlier than the national lockdown. At the end of April they made it mandatory to wear face mask in public (Sneha and Varghese 2021). The government of Kerala provided their inhabitants with own daily updated webpages. One of these pages was the "Kerala: Covid-19 battle", where you could follow daily updated statistics of confirmed cases, active cases, recovered, deaths, vaccination rates, quarantine reports, and so on. Inhabitants could also follow updated restrictions, find relevant links like online doctor services and find a page of frequently asked questions (Government of Kerala 2022).

Other key strategies that Kerala adopted to prevent and control Covid-19 were to screen and follow-up everyone arriving in the state from other parts of India or abroad, a tracing system, to trace all primary and secondary contacts, and the home quarantine was promoted from the beginning. People who did not have the opportunity to quarantine at home were offered this at an institution (Menon et al. 2021, 3). Thomas Isaac and Sadanandan (2020, 35) states that one of the things that helped Kerala's Covid-19 management was the aggressive strategy of:

> "quarantining and placing under observation everyone arriving from hotspots, testing all symptomatic persons, and if proved positive, tracing their contacts and placing them under observation."

The management of Kerala fits into the welfare state health system. To be able to achieve a higher level of welfare, there has to be some well implemented framework and the welfare state can be used to establish this framework and further ensure higher welfare throughout the population, as mentioned in 5.1.1. Kerala, as a welfare state, already had some framework regarding health care and crisis management that was useful in the management of the pandemic. Health care is an important component of welfare states, see section 5.1.4, as it is important for all people throughout, and everyone will be in need of health care at one point of their lives. Health care is in general important as it decreases inequalities and increases the health of the population. The health care system Kerala follows can be recognized with the Beveridgean type, as recognized from section 5.1.4, to be financed through general taxation, even though there also is a share of the health sector that is covered by the private sector as well. In Kerala there is a reason to believe that the private health care system, together with the public, has contributed to good results in the Covid-19 management.

In the beginning, the majority of positive cases were from people already under observation. By May 2020, the management of Covid-19 were successful, and Kerala had "the lowest case fatality rate of 0,8% and the highest recovery rate at 78,71%" (Thomas Isaac and Sadanandan 2020, 36). By comparison the national average was 3,23% and 26,52% (ibid). The pandemic was "fought extremely well from January until May 2020" (Törnquist 2022, 215). Kerala was one of the first Indian states that went into lockdown, but also one of the first to lift restrictions. At one point in a pandemic, a state would have to take a stand on how long there is justifiable to hold strict restrictions. Restrictions can only be held for so long, without affecting the socio-economic aspects in the society. The state then has to consider a trade-off between "the economic and public health consequences of imposing or lifting restrictions" (Sneha and Varghese 2021). For example, does tourism, which was highly affected by the pandemic, account for 23,5 percent of the employment of Kerala together with 10 % of the state's gross domestic product (ibid). Another challenge was that the unemployment rate was rising, and challenged an already high rate, especially among youth with education (Törnquist 2022, 215). When exiting the first lockdown, Kerala implemented an exit strategy where there was a plan on how to handle returning migrants. They also recommended inhabitants over 65

and those in high-risk groups to quarantine themselves. Further Kerala would carefully open up livelihood activities. The state government planned for two committees to study the impact of the pandemic economy and state finances, together with preparing special packages for the industrial sectors (Thomas Isaac and Sadanandan 2020, 39). But with lifting restrictions and opening the society, there will also be a risk of new outbreaks, which was the case in Kerala (Sneha and Varghese 2021).

During the first phase of Covid-19 Kerala managed to keep the infection curve flattened. In the second phase the numbers of infected was rising, but the fatality rate was still low (Sneha and Varghese 2021). However, the third wave, starting in August 2020 hit harder for Kerala, and Chathukulam and Tharamangalam (2021, 3) explains this with:

> "Kerala's strategies in containing the pandemic in the first and second wave of infections gave way to premature celebrations and it instilled a sense of false safety in the minds of people."

Although the situation became worse throughout the pandemic, this does not "take away the success in rapidly mobilizing resources, creating institutional mechanism for coordination, continuously evolving protocols and engaging with the citizens" (Sneha and Varghese 2021). Even though the numbers of affected cases were high at some points after August 2020, the fatality rate stayed low, as seen in figure 1-4. The government of Kerala has been applauded by their crisis management, and Sneha and Varghese (2021) states that:

> "The Kerala governmental response to the pandemic continues to be unparalleled and noteworthy. The government has been able to rapidly mobilize its functionaries into different working groups and evolve a consultative decision-making process that also include stakeholders (such as experts, political opposition, volunteers) external to the government."

In January 2022, Kerala was presented with a new lockdown, where only shops that sells essential items were allowed to be open. Still, this last shutdown was not as strict as previously shutdowns, as hotels and restaurants were able to host in house dining, train services was available, and tourist was allowed to travel. Social gatherings were banned, shops and markets was closed, the same was churches and other religious assembles (The

Economic Times 2022). The lockdown lasted until late February 2022, and was the last lockdown regarding Covid-19.

During the pandemic, Kerala has shown that their health care system, and crisis management works in minimizing the fatale results of Covid-19. As a welfare state with a well-functioning health care system, Kerala has managed to give 'quick and easy access to treatment', as recognized from section 5.1.4, together with providing a framework for restrictions based on previously health crisis and the experiences of having a health care system that works.

Another factor of how the management of the pandemic has been more successful in Kerala than other states in India, is connected with just being a welfare state. Studies from multiple countries shows that low income, poverty and low standard of living are connected to the risk of fatale results of Covid-19 (Stranden 2020). Education is one of the major determinant, after health care, to ensure a good public health and to decrease health inequalities, as mentioned in 5.1.4. Education is a determinant to a secure economy, which further affects the ability to purchase nutritious food, ensure safe housing, having better opportunities for social participation, which all affects the public health. Further it affects health as higher education give better knowledge of how to take care of their own health and having better access to medical care.

6.2.1 How did Covid-19 affect the socio-economic aspects in Kerala?

As being one of the largest human disasters in long time, the Covid-19 pandemic also have caused major health and socio-economic problems all around the world. In addition to having caused the lives of more than four million people, the pandemic is "expected to regress some of the gains that many countries have made in poverty reduction and towards social indicators" (Vijayan et al. 2022, 2095).

The first Covid-19 lockdown in India started in March 2020. Already in April-May 2020 there was conducted a quantitative research of the social influence of Covid-19 in Kerala. The research was based on a cross-sectional survey conducted by 700 families throughout Kerala (Saji et al. 2020). The social impact from the lockdown has been enormous in India. Saji with colleagues (2020) exemplifies this by stating that:

> "Repeated lockdown extensions have led to a struggle for basic needs like food and shelter, frustration, disproportionate sharing of domestic responsibilities, and violence against the vulnerable members of the household."

The research states that the social distancing and isolation affects the population more than the fair of the deadly coronavirus. This isolation led to increasing levels of "anxiety, aggression, depression, forgetfulness, and hallucinations" (Saji et al. 2020). Between March 19th and May 2nd 2020, there were reported 338 people in India that died due to lockdown. The number includes "suicides arising due to fear from corona, self-isolation, starvation, and financial distress" (Ghosh et al. 2020).

Throughout India, issues of poverty, hunger and starvation have escalated due the pandemic. In addition, mass unemployment has become an unavoidable challenge (Ghosh et al. 2020). Vijayan with colleagues (2022, 2096) states that "more than 122 million people lost their jobs in April 2020". Many of them were daily wage labors and small traders (ibid). In 2021 nearly 36 million people between 18 and 29 in India were unemployed, and many had to settle for less paying jobs. The already challenging work market was additional challenged by lockdown. Youth that had their first jobs, and lost them during lockdowns, now struggle to get new jobs. As many in the beginning of their careers remain unemployed for a longer period, it will affect their career further for a long period of time (Torgalkar 2022). Unemployment would not only affect the society negatively by people being unemployed, it will also cause massive social challenges and can drive people to "chronic stress, anxiety, depression, alcohol dependence, and self-harm" (Ghosh et al. 2020). In light of this, one can ask question about the length of the lockdown. Would the challenges for society be less if society had been opened up more quickly? This question will probably be asked by the international community when the handling of the pandemic is to be assessed.

A research of Vijayan with colleagues (2022, 2096) done between January and August 2021, conducted how socio-economic aspects had been affected in rural households of Avanur panchayath of Thrissur district in Kerala. The research looked at socio-economic impacts including "loss of job, problem in transportation, domestic violence and crime, reverse migration, skipping meals and poverty" (ibid). The economic impacts included "loss of wage, inability to repay loans, difficulty in paying for health services, difficulty in paying for food, difficulty in paying off debts in any and difficulty in paying for child's education" (ibid).

The results showed that the component 'loss of job' was the most common, with 53,8%. It was challenging to find new jobs as well in the period of lockdown. 74% lost some of their wages, and only 17,9 % found an alternative source of income. 6,5 % even had to sell their 'household assets including animals as a coping mechanism'. Regarding access to food, 48,8% 'experienced difficulty in paying for food or essential items' and as many as 94,2% made use of support regarding 'monthly ration of food' (Vijayan et al. 2022, 2098-2099).

The local government provided food through community kitchen, where most of the provisions needed were donated. The kitchens were mainly run by volunteers, together with one or two cooks. If people were not able to go the kitchens, for example due to quarantine or isolation, food could be delivered at home (Thomas Isaac and Sadanandan 2020, 38).

The study included 535 participates, and even though it only is from one area of Kerala, it can give an indicator on which factors that were challenging to the population. Challenges regarding loss of jobs and wages is the major problem, which also naturally affects aspects of food, the ability to pay rent and loans and so on. The economic problems further caused psychological stress, fear, frustration, and anxiety (Vijayan et al. 2022, 2099). These things considered, it will be interesting to see how the socio-economic aspects in Kerala develops and further affects the welfare state in the future.

6.3 Lessons for the future from past epidemics, environmental disasters, and pandemics

Kristensen (rendered in OCHA 2022) states that: "It is 100% certain that pandemics will be a part of our future. The uncertainties are: when, how often, and how severe". Even though we hope that our new worldwide experience will not be needed in the near future, it is important that we learn from our past health crises. One of the biggest challenges regarding the Ebola, Nipah and Covid-19 outbreaks, except the public health aspect, is that there were no therapies or vaccines when they accrued (Pardo et al. 2020). And when there are no vaccine or therapy solutions, "symptomatic treatment is the only option" (Thakur et al. 2022).

It is important in health crises that local government take action and control over the situation. The importance of a local government is recognized from Törnquist's (2022) theory of the third generation of Social Democracy in section 5.1.5. The significance of a well-functioning

local government has been proved over the last years with the Covid-19 pandemic, but also regarding the Ebola and Nipah outbreaks. Moolakkattu and Chathukulam (2022, rendered in Crawford 2022, 119) states that:

> "Local governments everywhere seem to have responded more effectively to prevent the spread of the virus, more effective than intervention by provincial and central government."

Both Crawford (2022), Thomas Isaac and Sadanandan (2020), Vijayan (2020), and Törnquist (2022) agree that one of the success factors of Kerala's management of the Covid-19 pandemic, is the decentralization of the government. The role of the local government and local health services in Kerala have proved to be crucial in the management of Covid-19, but also the Nipah virus, and the severe floods (Törnquist 2022, 218). Moolakkattu and Chatukulam (2022 rendered in Crawford 2022, 120) states that: "the pandemic provides an opportune moment to revisit the role of local governments the world over". There are many countries that during the pandemic operated with both national and local restrictions.

Together with a robust local health system, the success factors of Kerala's management have been "the social capital of the state", "the active involvement of the community through local governments", and "the trust-based social contract between the state and the people" (Thomas Isaac and Sadanandan 2020, 36). Trustworthiness towards the local and national government, as well as between the state and the inhabitants, is highly relevant in the management of a pandemic or crisis situations. Karlsson (2018, 17) explains trust as a way to promote "democracy, economy, health, happiness, and quality of life, as well as reducing corruption, crime, and economic transaction costs". Trust if often connected with democracy and wealth, and countries with high social trust often rank high on the HDI (ibid).

Sneha and Varghese (2021) states that "as the pandemic continues to unfold, the need of the hour is not just state policy and state action, but also electing public trust and citizen engagement". Kerala managed to include close to 400 000 volunteers to participate through different community actions towards the battle of Covid-19. To be able to keep the relationship between the state and the people trustworthy, it is important to keep the state system decentralized. Having a centralized governance system, with decisions being made far away from the people, the trust will be lowered (Vijayan 2020, 12). This makes the state

governance in India and the individuals states decision making extremely important in having the Covid-19 management ending up successful or not. Kerala as a welfare state has had "a very strong system of decentralized governance" which have helped them in managing the issues of the pandemic (ibid).

Even though Kerala has a decentralized governance, the trust in the public government was low for many years. In 2011 the Congress-led government was ridden with corruptions, which made to a shift of power to the Left again in 2015 (Törnquist 2022, 214). Later years, the trust have been strengthened. As section 5.1.1 shows, trust in the government is connected with welfare and it is further important in crisis management. While the welfare in Kerala has been growing, it is also natural that the trust in the government also strengthens. This trust has been further strengthened as the government's crisis management of the severe floods of 2018 and 2019, the Nipah Virus outbreaks in 2018 (and later 2019 and 2021) managed to handle the situations with good results. Former crisis management would help the government in their handling of the pandemic, both with the experiences they acquired, and with the public trusting that they manage the situation in a good way (Thomas Isaac and Sadanandan 2020, 37).

Since the management of health emergencies also require that the population collaborates, people also have to trust their government (Thomas Isaac and Sadanandan 2020, 37). The trustworthiness has been an important issue in Covid-19 management both with restrictions and with wanting to take the vaccine. In comparison, Norwegian inhabitants have high trust in the Norwegian government, so that the vaccination information has been received with a high credibility. In countries where there is less trust in the government, there has also been a higher amount of inhabitants skeptic of the vaccination (UNICEF 2021).

Additional to a strong local government and high trustworthiness, another aspect that is important to take with us from former crises, is the importance of fast actions. The STEPP framework developed by the United Nations for the Ebola outbreak in 2013-2016 "has become a standard reference norm for health emergencies" (Thomas Isaac and Sadanandan 2020, 40). This framework has seemed to work well for the major health crises like EVD, NiV, and Covid-19, and is a framework that presumably would be useful in possible crises. It is also a major advantage when faced with a new crisis to have experience with handling a health emergency. In Kerala we see that "the experience of managing two episodes of Nipah"

gave the state a comparable advantage in handling Covid-19 (Thomas Isaac and Sadanandan 2020, 37).

Kerala have already made use of the experience of the Nipah outbreak of 2018 into the Covid-19 pandemic. The new experiences learned from Covid-19 was further useful when a new single case of Nipah emerged in 2021. Thakur with colleagues (2022) explains that:

> "The use of established protocols, contact tracing, restriction in population movement within the infected area, isolation of close contacts, and high-risk exposures effectively possible have restricted the spread of infection to health care workers and close contacts. The establishment of control rooms diagnostic and counseling centers further helps towards its control."

The NiV case of 2021 was limited to this one case, as the management worked. We could only hope that these experiences will help in possible future health crises that might accrue. But we know that "with every new outbreak come new challenges" (Pardo et al. 2020).

7 Conclusion

This thesis has analyzed how Kerala managed the Covid-19 pandemic. Kerala, as one of the states in India with the highest welfare, have managed to achieve great results in education, health, gender equality, social justice, law, and order. Due the Kerala model of development, the quality of life has been ranked high, and even though the economy has been challenging to increase, the state has had an economic growth for the last couple of years. As a stronger welfare state compared to elsewhere in India, Kerala's government has managed to guide their inhabitants through a pandemic in a remarkable way. With the experiences from previously crises of Nipah and floods, Kerala was quick to implement surveillance mechanism, and to provide restrictions. This resulted in low transmission numbers in the beginning of the pandemic. When the cumulative cases rose, the fatality rate was kept low.

The three cases of Nipah, Ebola and the floods shows how crisis management has been done before. Two of the cases provided direct crisis management experiences for Kerala, while the case of Ebola showed how other countries manage health crisis, as well as providing experiences that could be shared with the world for further health crises. Some frameworks,

like STEPP provided by the United Nations to the Ebola outbreak management, have been useful for other countries as well. And we know that this framework has been used in Kerala as well. However, it seems to be the crisis management of the floods and the Nipah virus that have been the most important experience for Kerala in managing the Covid-19 pandemic.

Together with the aggressive strategy of quarantining and observing people arriving from hotspots, testing, and tracing, Kerala used their well-established health sector to provide good guidelines for hospitals, response teams and so on. They also launched their "Brake the Chain" campaign just a week after their first case. The framework of their health sector provided good management from the beginning of the pandemic, showing that there are advantages in being a welfare state with a well-functioning health care system.

In crisis situations, there seems to be an advantage in being a welfare state. Not just having the framework of management available for when a crisis appear, but also just being a welfare state. Being a welfare state that has a trustworthy government, good education, well-functioning health care system and so on, makes it easier to cope with unforeseen events. Education also shows to be a major determinant, second to health care, to ensure the public health. Both to ensure nutritious food, and to ensure a safe house. Without a place to live or access to the most basic needs, there are challenges to do home quarantining, handwashing and so on. Education also provides knowledge in how to take care of own health and will affect the ability to have access to medical care.

In the future it will be interesting to follow how the Covid-19 pandemic has affected the development of the socio-economic aspects in Kerala and how it will affect the welfare state. There is a possibility of a setback due to many youths struggling to find jobs which again might result in a decrease in personal income and a set-back in the Kerala economy. There is also a possibility for increased phycological problems, and setback in education. A setback in education could possibly affect Kerala in multiple ways, for example in economic aspects as it will be a setback in recent graduates and less people working and providing the state with labor and further taxes. Less taxes would further affect the recent growing economy, making other welfare schemes affected. In the welfare states, the different components are highly connected, and a setback in one of them, will find ways to affect the others. All of these possible challenges might not affect Kerala now, but can be major challenges in the years to come.

The next years, the whole world will have to work on getting back on tracks after the pandemic. There have a few years that the majority might want to forget, with different challenges, losses, and tragedies. However, it is important to evaluate and keep track of the factors of success of the different states. The decentralization and trust in the government have seemed to be an important aspect for Kerala as a welfare state in these past crises. This have formed a foundation for the further management and have made sure of having the inhabitants on their side. The framework provided of welfare states for the past crises, can be reused for new possible cases with a few adjustments, making the states more prepared for future crises. It is important to remember the lessons learned from this last pandemic, and other health and environmental challenges, because this will most likely not be the last one.

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