

FINANCIAL FEASIBILITY OF UNIVERSALIZATION  
OF  
COMPREHENSIVE SOCIAL SECURITY PROGRAM  
IN  
**INDIA**  
A THESIS  
SUBMITTED IN FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE  
OF  
DOCTOR OF PHILOSOPHY  
IN ECONOMICS  
AT



GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

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GOKHALE INSTITUTE OF POLITICS AND ECONOMICS  
2018

**Financial Feasibility of Universalization**  
**of**  
**Comprehensive Social Security Program in India**

Number of Volumes : Thesis (One)

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It is an original contribution and has been completed during my tenure as a research scholar at Gokhale Institute of Politics and Economics, Pune.

This thesis has not been submitted by me elsewhere for the award of any degree or diploma-part or full. The information gathered by me elsewhere for the thesis is original, true and factual. Such material as has been obtained from other source has been duly acknowledged in the thesis. I hereby request, to consider the thesis for the award of the degree of 'Doctor of Philosophy'.

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CERTIFIED that the work incorporated in this thesis entitled "*Financial Feasibility of Comprehensive Social Security Program in India.*" submitted by *Manu Jain* was carried out by candidate under my supervision. It is an original contribution and has not been submitted elsewhere for the award of any other degree. Such material as has been obtained from other source has been duly acknowledged in this thesis. I recommend that the thesis should be considered for the award of the degree of 'Doctor of Philosophy'.

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## Acknowledgement

As I read somewhere the PhD thesis is not a single person's effort, rather it's a team effort. So, it is unfair rather incomplete, without expressing the gratitude towards the people who contributed in different capacities to accomplish this life time experience.

First and foremost, I am grateful to my principal guide Dr. Lalitagouri Kulkarni, who has been a constant support throughout the journey. She has provided the crucial guidance and constant encouragement to complete this study, tirelessly working with me to make changes and improve. Her guidance was not restricted to academic levels but also towards developing a thinking and analyzing methodology and to look at the problems and test the solutions from different angles.

I also express my gratitude to Prof Dr. Rajas Parchure for providing the overall direction and vision, facilitating my research needs through various sources and timely advice and suggestions.

I am also grateful to my co-guide Prof Dr. Anjali Radkar for the crucial inputs on data discrepancy and feedback at different junctures.

I also thank Prof. Dr. V. V. N. Somayajulu for their encouragement and whose advice on subject has been really enriching.

I am thankful to Prof. Dr. Jagadish Gokhale whose work in this field served as an inspiration for me to start this endeavor. I also appreciate his guidance I received during the meetings with him.

One place in the Institute where I continued visiting and adding to my knowledge is the GIPE's library (Dhananjay Rao Gadgil Library). I admire the diverse assortment and historical collection of books and journal articles, which has expedited my overall learning. I am grateful to the entire library staff for their perpetual support and cooperation. Special thanks to Dr. N. Shewale, Librarian and to Mr. N. Choudhary. I also express my gratitude towards Mr. D. Pardeshi, Mrs. R. Kulkarni, Mrs. D. Inamdar and the library assistants' Mr. Santosh, and Ms. Shilpa for their cooperation.

I also thank the library staff of National Insurance Academy (NIA), Pune where I used to visit, looking for various data and references. I also express my gratitude towards Mrs. Anuja Chandrachud, Mrs. Vidya Kher and Ms. Manisha Shinde of Ph.D. Section for their constant support and encouragement. Their advice on different matters was inspiring.

I also thank the earlier Registrars at GIPE Dr. R. Nagarajan and later Dr. R. Bhatikar for providing the entire needed infrastructure during Ph. D. I also thank Internal Ph. D. Committee, participants and the faculty members of the Institute for their feedback at the various six-monthly work-in-progress seminars.

I thank the entire IT staff at GIPE led by Mr. Pramod Joshi and his assistants Mr. Ganesh Ghule for their support and help rendered in numerous instances. I am also grateful to all the non-teaching staff at GIPE for all their cooperation and support throughout the course.

I am thankful to Ph.D. and GIPE colleagues Mr. Anil and Mr. Vijay for their support and cooperation.

This thesis could not have been possible without the support and cooperation of my kids Aditi and Aditya. I am grateful to them for everything, as there were days I could not be with them at the time of grave difficulties. They have shown tremendous maturity and managed things in my absence.

Lastly, I thank my husband for his constant encouragement and perseverance without which this thesis would not be completed. His help in analyzing and coming up with suggestions and solutions has been very valuable.

There were days when I needed support. Then my friends, family members, faculty at GIPE, and colleagues encouraged me to tread on the path. I am sure; I have forgotten many people who have helped me in different capacities including intellectual stimulation, insightful excitements and time to time reinforcement for the completion of the long cherished and much awaited thesis. Their contributions helped me to go into deeper of the issue and change the degree of mental image and its levels of ideality to be accomplished. Overall, I express my gratitude to all those who encouraged and helped me directly or indirectly in this journey.

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## ABSTRACT

Government over the years in India, have strived towards fulfilling the basic needs of a common man in India and taking care of their well-being. Well-being or welfare of the citizens is a broad-range term which includes activities ranging from ensuring a healthy life and have them a secure old-age by allowing them meeting their expenses at the time they are helpless and not able to make the two ends meet by themselves. This is an important requirement and becoming more important by-passing years.

The basic components of the preparing to face the unfortunate events in life includes, access to medical care, means of living in old age, mitigating the risk due to the death of bread earner in the family etc. The present and past governments in India have been working towards that and lot of institutions and individuals (both government and private) have been working relentlessly to achieve this objective which was once considered a long-term, but it's the need of the hour today. We have past sixty-seven years of independence bearing a tag of developing nation – a promising market for world-class organizations, home to most-of-the-best minds in business and technology. Still, it's an irony that we have miles to go to provide those basic needs of a person in India – a right to lead a life in a reasonably healthy condition by way of helping him overcome some of the basic uncertainties the life.

The need to Life Insurance, Health Insurance, Old age pension and Maternity benefits has been identified as a need for India. We took up to understand, analyze the existing assistance with respect to these, find out how they fare in terms of improving the condition and come up with suggestions or proposals to make them effective. We have come up with the detailed calculations which would concretize the proposals and also give a clear picture in terms of the budgetary load which these schemes would have.

# Chapter 1

## Introduction

### 1.1 Overview

Social Security is among the primary focus areas for all the nations in the world. Protecting the citizens from the predictable and unpredictable uncertainties is the prime motto of such schemes. International agencies like World Health Organization (WHO), International Labor Organization (ILO) and government ministries are working towards achieving this common goal. We have taken up this study to evaluate the existing schemes mooted by the Indian government and tried to analyze them based on the parameters suggested by different studies conducted so far. We have also provided the suggestions and proposals including the analytical framework for those, to fix the issues identified in the course.

### 1.2 Introduction

The size of the population of the world having the inability to face the unforeseen or even predictable problems of the future can be seen via the tables presented below.

**Table 1-1: World's population lived at or below \$1.9/day**

1981	1.99 billion
1995	1.95 billion
2012	896 million

Source: World Bank Report 2012.

**Table 1-2: World's population lived at or below \$3.10/day**

1990	2.9 billion
2012	2.1 billion

Source: World Bank Report 2012.

As the Table 1-1 and 1-2 above shows that even though the population living under that threshold has been declining over the years still, far too many people are living with far too little.

When these people experiencing extreme poverty, faced with the challenges affecting their economic security – they are further pushed below economically. These are the vulnerable

sections of society which can't sustain the socio-economic shocks on their own and need support to protect their livelihood and help them in the times of crises.

Everyone, as a member of society, has the right to have a secure life and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State. Society in which a person lives should help them to develop and to make the most of all the advantages (culture, work, social welfare) which are offered to them in the country.

There is significant progress in the recent years in terms of making these weaker sections of population immune to such economic crises, with the various initiatives by the governments and agencies. Agencies like World Bank, United nations are working at international level are striving, pushing and helping the countries to work in this direction for example there were Millennium Development Goals defined and worked upon till 2015 and then the Sustainable Development Goals defined as the second stage of development to be achieved by 2030.

The magnitude of problems is more severe for the developing and underdeveloped countries because of the very nature of under-developed capital and insurance markets, limited budgetary support and the dependency on traditional occupations under the economy. The governments of developing countries find it difficult to support the schemes of the magnitude that are sufficient to cover the whole population.

The schemes to support such cause come under an umbrella term called – Social Security. Social security covers different schemes depending on the country, society, region of the world and the target population. Social Security may also refer to the action programs of government intended to promote the welfare of the population through assistance measures guaranteeing access to sufficient resources for food and shelter and to promote health and well-being for the population at large and potentially vulnerable segments such as children, the elderly, the sick and the unemployed. Services providing social security are often called social services.

Different countries have implemented it in some form or the other with similar or different names. The eligibility conditions, contribution source and the benefits provided differs

from case to case. India like other countries worked and still working to alleviate poverty and supporting the people in needy times by supporting them through various social security schemes.

This study deals with the four main components of social security namely, Life, Health, Old Age Pension and Maternity Benefit. This study analyzes the current schemes under these domains, finds the areas of improvement and suggests the ways to overcome those with specific analytical inputs.

The next section explains the concept of social security and delves more into the term to get the context clearer.

### **BOX 1 Origin of the Term “Social Security”**

Abraham Epstein, an American, recognized as introducing the phrase “social security” to USA and, to the world. Abraham Epstein was a national leader in the social welfare movement in the first half of the nineteenth century.

At the beginning of the 1930’s the term “economic security” was used by those who worked on the early legislation; it was used by the US President Roosevelt in June 1934 when he formed the Committee on Economic Security; and in his January 17, 1935, message to Congress urging enactment of the Committee’s recommendations, which were incorporated under the “Economic Security Act.”

Epstein acknowledged that his friend and colleague Emil Frankel was the person who coined the term “security”: when they started something called American Association for Old Age Security in 1927.

Epstein, Frankel said, was in the process of “establishing a national organization to spread the gospel of old age assistance throughout the United States, the proposed American Old Age Pension Association. They agreed upon to use the name as: ‘security’. And then on the word ‘security’ was incorporated in all social legislation in America and became a household word in the United States and spelt assurance to millions of American citizens in meeting life’s untoward economic problems.

Epstein insisted on the term ‘social security’ because by that time he had a clear conception of the differences which lay between the concepts of social insurance as worked out by Bismarck in Germany and the conception of social protection as elaborated in England. He did not want to name it as ‘social insurance’ because this would give it a different meaning of the actuarial insurance concept in terms of compulsory savings which do not justify governmental contributions. He did not want economic security because what he hoped for was not only a form of security for the workers as such but also to promote the welfare of society as he was convinced that no improvement in the conditions of labor can come except as the security of the people is advanced.



The term social security caught the attention of numerous economists, policy makers and other leaders of the world in the coming years. The next section of this chapter presents the formal definitions of social security by the economists and policy makers of different countries.

### **1.3 Definitions of Social Security**

To understand the social security as per the formal definition conceptualized by the people and organizations concerned below mentioned are the definitions collected.

#### **1.3.1 Bismarck's definition of Social Security**

Germany became the first nation in the world to adopt an old-age social insurance program in 1889, designed by Germany's Chancellor, Otto von Bismarck, who said: ". . . **those who are disabled from work by age and invalidity have a well-grounded claim to care from the state.**"

The German system provided contributory retirement benefits and disability benefits as well. The participation was mandatory, and contributions were taken from the employee, the employer and the government. It was coupled with the workers' compensation program established in 1884 and the health insurance enacted the year before. With this the Germans adopted a comprehensive system of income security based on social insurance principles. Unemployment insurance in 1927, completed the system.

#### **1.3.2 Beveridge's definition of Social Security**

William Henry Beveridge, a British economist published a report in Dec' 1942 mentioning that the main reasons of economic problems were due to the interruption or loss of earning power caused by unemployment, sickness, old age and death; the remainders were due to failure to relate income or earning to the size of family. So, the approach of Beveridge towards social security was based on the three principles:

- 2 There should be a universal child allowance whether the wage earner was in or out of work to eliminate family poverty due to large families.

- 3 There should be a high level of employment, or at best full employment, maintained by government policy; mass and long-term unemployment ought to be avoided.
- 4 There should be comprehensive health and rehabilitation services to avoid heavy expenditure and maintain a healthier population.

### 1.3.3 International Labor Organization (ILO)’s definition

ILO being the international agency working towards the interests of the labor class, workers and people with uncertain income security defines social security as below:

“Social security is the protection that a society provides to individuals and households to ensure access to health care and to guarantee income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a breadwinner.”

Social security protection is clearly defined in ILO conventions and United Nation’s instruments as a basic human right. Broadly defined as a system of contribution-based health, pension and unemployment protection, along with tax-financed social benefits, social security has become a universal challenge in a globalizing world.

The subsequent table lists the various conventions adopted by ILO with respect to the social security.

**TABLE 1-3 : ILO conventions and recommendations relevant to social security extension policies**

<b>ILO Convention</b>	<b>Year (and Number)</b>
Social security was established as a basic human right in the ILO’s Declaration of Philadelphia	1944
Income Security Recommendation It says that income security scheme should relieve want and prevent destitution by restoring, up to a reasonable level, income which is lost by reason of inability to work (including old age) or to obtain remunerative work or by reason of death of the breadwinner.	1944 (No.67).
The Social Security (Minimum Standards) Convention Identifies nine areas for social insurance-medical care as well as benefits in case of sickness, unemployment, old age, employment injury, family circumstances, maternity, invalidity and widowhood.	1952 (No.102)
The Equality of Treatment (Social Security) Convention	1962 (No. 118)

The Employment Injury Benefits Convention	1964 (No.121)
Invalidity, Old-Age and Survivors' Benefits Convention	1967 (No. 128)
The Medical Care and Sickness Benefits Convention	1969 (No.130)
The Maintenance of Social Security Rights Convention	1982(No. 157)
The Employment Promotion and Protection against Unemployment Convention	1988(No.168)
The Job Creation in Small and Medium-Sized Enterprises Recommendation	1998(No. 189)
Maternity Protection Convention (Revised)	2000(No. 183)
Adopted the Resolution and Conclusions concerning Social Security	2001

Source: (ILO social security and other labour standards.)

As is evident the organizations like ILO have been concerned about the social security for a very long time. The next section covers what Indian constitution provides for social security of the citizens.

### **1.3.4 Social Security as per Indian Constitution**

Indian government and agencies included, have social security as their primary agenda since many years. Ministry of Labor thinks that Social Security protects not just the subscriber but also his/her entire family by giving benefits package in financial security and health care. Social Security schemes are designed to guarantee at least long-term sustenance to families when the earning member retires, dies or suffers a disability. Social Security system acts as a facilitator - it helps people to plan their own future through insurance and assistance. The success of Social Security schemes however requires the active support and involvement of employees and employers and independent earners. As an earning member, one is a source of Social Security protection for himself and his family. Employer is responsible for providing adequate social security coverage to all workers.

Social security in a broader sense means the overall security for a person in the family, work place and society. It should include the ways to ensure that all citizens meet their basic needs (such as adequate nutrition, shelter, health care and clean water supply), as well as be protected from contingencies (such as child birth, child care, illness, disability, death,

unemployment, widowhood and old age) to enable them to maintain an adequate standard of living consistent with social norms.

The objective of social security is to ensure the right of every Indian to live a dignified life. The recognition of social security as a human right represents a connection between needs-based charities to rights base social justice. As a member of the United Nations, India has signed the Universal Declaration of Human Rights (UDHR), the International Covenant on the Economic, Social and Cultural Rights (ICESCR), the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of all forms of Discrimination against Women (CEDAW). The right to social security has emerged as human right and India, under international commitments and obligations, is bound to provide social security to all citizens equally.

The Constitution of India also provides for the right of equality, the right to life and the right of social protection. It also guarantees social security measures to workers of the unorganized sector. The table below lists some of the respective articles from the constitution of India and the aspects they cover.

**TABLE 1-4 : HUMAN WELFARE RIGHTS UNDER THE CONSTITUTION**

<b>Rights provided by Constitution of India</b>	<b>Corresponding Article number</b>
Rights to equality	14
Freedom of speech and association	15
Exploitation such as right against traffic in humans and right against forced labor	23
Right against child labor	24
Right to livelihood	39(a, b and e)
Right to work, education and public assistance in case of unemployment, old age, sickness and disablement and other cases of undeserved want	41

Provisions for securing just and humane conditions of work and maternity relief	42
Create conditions of secure work, provision of a living wage and to create conditions of work ensuring a decent standard of life and full enjoyment of leisure	43
Raising of the level of nutrition and the standard of living of its people, and improvement of public health	47

Source:(Indian Constitution, 2007)

## 1.4 History of Social Security in India

### Phase I Pre-colonial Era:

Since ancient times India has social security in place albeit from the and India has provided an example to the world in this regard. India has long been a place of joint family system due to which the needy and vulnerable ones are protected in the same. The unforeseen, unexpected and unfortunate emergencies that may be due to unemployment, economic difficulties, old age, widowhood etc., was taken care of by joint family system. Additionally, the support is also from the guilds, community and Panchayats, orphanages, widow homes and charity centers available during that time.

With the development of liberalism and the promoted individual nature of lives following the western culture the Indian values and traditions were shaken and hence the support system. With the advent of industrialization, the new class is developed with the rural background sans the social support system. So, in modern India the social security responsibility largely depended on the resources and needs of the country.

The social security policies that we find today in India are a mix of the ideals and principles emerged over the years.

As mentioned above the India's societal system was taking care of the social security. The modern state of living mandated the need to have the state assuming the role of the protector of people from the emergencies. The philosophy of public welfare has resulted in legislative schemes designed to take care of the social security of the people at large. Labor

law which had been once almost a part of private law became part of public law. (Mini, 2009)

**Phase II Colonial Era: since Mid-19<sup>th</sup> Century to 1947**

- a) From the middle of 19th Century to the end of First World War, the Indian industrial legislation was in the period of origin. It was through a slow and steady process that the industrial law took root in India.

Below are the major milestones from the history of the legal initiatives taken in this regard.

**TABLE 1-5 : List of different acts enacted from middle 19<sup>th</sup> century to First World War.**

Act	Year of enactment	Details
Apprentices Act	1850	To enable children, learn trades, crafts and to seek employment by which when they come to full age, they may gain a livelihood.
Fatal Accidents Act	1855	To compensate for any losses due to factory accidents.
Indian Merchant Shipping Act	1859	To regularize the jobs of seaman and take care of their health.
Employers and Workmen (Disputes) Act	1860	For faster redressal of the disputes between employers and workers.
The Pensions' Act	1871	To consolidate and amend the law relating to Pensions and Grants by Government of money or land-revenue.
Indian Factories Act	1881	To ensure the safety and better working conditions of the labor.
Island Emigration Act	1892	To improve the conditions of plantations labors.
Indian Mines Act	1901	To secure safe and healthy conditions of miners.

Source: Compiled by researcher from various sources.

Apparently, all these early legislations were enacted with respect to the specific classes of industries and did not extend to the entire working class or population for that matter. Most of the measures adopted were related to railways, shipping, factories, and mines. The

advancement of both industries and industrial laws was un-holistic and inadequate. It didn't get the kind of focus it deserved from the government and agencies.

This might be the reason for industrial enactments passed during this period happened to be limited. These were also scattered, non-universal with respect to their coverage, and hence of minor importance, and hence didn't address the problem to the complete extent and provided a half-cooked solution to them.

During and after the First World War period, there had been significant change in the attitude of state and society towards labor.

### **Post-World War I**

ILO was established in 1919 which aimed at welfare of workers globally. India is a member since its inception. ILO has adopted many conventions and recommendations casting different types of liability on industry, Government and labor. Under the Montague-Chelmsford Reforms in 1919, the central legislature was given definite legislative authority to enact industrial laws.

### **Post-World War II**

The Government of India Act, 1935 laid down the subjects on which Federal Legislature could pass industrial laws. During this period, industrial legislation progressed and underwent a significant change in its nature. These acts gave coverage to major field of industrial workers, their rights and well-being. These laws are found to be liberal with respect to their contents and coverage and having far reaching importance and results. This pointed a change in governmental attitude towards encouragement of worker's aspirations.

The acts passed during this period were not merely intended for regulating employment in the industries but attempted to give better conditions of employment like shorter hours of work, weekly holidays, safety of premises, and payment for overtime, rest period and paid holidays. All these changes were made mainly due to the emergence of ILO.

Apart from that, after the First World War, India witnessed a rapid rise in nationalism and the British Government also tried to accommodate and adjust some of the Indian demands.

The period of Second World War and after that saw the major changes and development in the field of social security. The war created a shortage of man and materials that necessitated increased production and that in turn required greater co-operation from labor. To ensure this several concessions were made to the working class under Defense of India Rules. The appointment of Dr. B. Ambedkar as labor member to the Viceroy's Council was a positive move in the government's labor policy. In 1943, a committee called the 'Standing Labor Committee' was appointed by Government of India for formulating a scheme for health insurance for individual workers. Another committee was appointed to make survey on the position of health conditions and health organizations in existence. The two ILO publications viz; 'Approaches to social security-an International Survey' and 'Social Security-Principles and Problems Arising Out of War' highlighted the tendency in planning social security to bring under a single scheme for assuring maintenance in case of inability to work and to extend this to all the employees, employed or self-employed, rural or urban.

The publication of Beveridge Report (1942) in England also had a remarkable impact on Indian scene. The Government of India made attempts to introduce sickness benefits in India. About this, the (Employee State Insurance) E.S.I. Review Committee observed: "Sickness is an important contributory cause of indebtedness with all that debt entails. Under existing conditions at the time of greatest need the worker may find himself, destitute of resources, unable to take proper measures to restore his health and in difficulties regarding even in the means of subsistence."

Recommendations of the ESI Review Committee (1966) were considered by Government of India and again referred to provincial governments. In Bombay, the Textile Labor Enquiry Committee formulated sickness insurance scheme and recommended in its report that a compulsory and contributory insurance scheme in which the employer, the workers and the state to contribute has to be put in motion at Bombay and Allahabad initially and extended to other cotton textile centers in the province. Though the center forwarded such schemes to states, none was implemented due to lack of interest of the provinces.

Government placed the matter in the First Labor Minister's Conference held in New Delhi in 1940 appointed a commission in 1943 under the Chairmanship of Professor B.R.



Adarkar. The scheme formulated by him envisaged to cover only perennial factories belonging to textile engineering, mineral and metal groups of industries. Government of India requested ILO to depute experts to examine Adarkar Report. ILO deputed M/s. M.Stack and Rao for evaluating Adarkar Report and they suggested certain modifications relating to classification of workers, contribution benefits, and the organization of medical services and financial structure of the scheme.

### **Phase III Post Independence**

In 1947, India became independent and an interim government was formed which caused greater encouragement to worker's legitimate ambitions and accelerated harmony in the industrial relations. The interim government formulated a five-year program for the welfare of the labor class. Some of the acts and initiatives by the government just after the independence are as listed below.

On the comprehensive social security front, in 1957 a study group on social security, to work out a comprehensive social security scheme, was appointed, but their recommendations could not make any impact. In 1966, a Committee on Labour Welfare and National Commission on Labour were appointed for examining the functioning of various welfare schemes in operation in industrial establishments and to suggest improvements. They submitted detailed reports in 1969. Apart from these legislative efforts, Committees and Commissions, a key role is seen played by Planning Commission.

The above stated brief history showed that the right of workers including social security was demanded to be included in the Indian Constitution as fundamental right. Social security was specially included in List III to Schedule VII of the constitution and it was made as the concurrent responsibility of the central and state governments.

Soon after the commencement of the Constitution, Five Year Plans were introduced in India to focus on different issues in a pragmatic and planned manner to better the life of the people. In 1954, India declared that it adopted a socialistic pattern of society and reshaped the labor policy.

**TABLE 1-6: Laws implemented by the independent India's government**

Industrial Disputes Act	1947	To allow an industrial worker to raise an industrial dispute.
Employee's State Insurance Act	1948	To ensure compulsory health insurance and benefits in the event of sickness, maternity and employment injury to workmen.
Mica Mines Labor Welfare Fund Act	1948	An Act to constitute a fund for the financing of activities to promote the welfare of labor employed in the mica mining industry
Coal Mines Provident Fund and Bonus Scheme Act	1948	An Act to make provision for the framing of a Provident Fund Scheme, a Family Pension Scheme, a Deposit-linked Insurance Scheme and a Bonus Scheme for persons employed in coal mines.
Employees Provident Fund Act	1952	The Act provided for old age, invalidity and survivorship benefits to the workforce in the organized sector. The Act covers factories and establishments employing 20 or more employees in scheduled industries and other establishments notified by Central Government. The employees drawing salary up to 6500/- per month are covered under the Act. There is a provision for voluntary coverage of a person even after he crosses the ceiling.
Benefit against unemployment	1953	An ordinance provided for lay-off and retrenchment compensation to industrial workers.
Seamen's Provident Fund Act	1966	Provident fund for seamen.
Contract Labour Act	1970	Act to establish contract labor.
Payment of Gratuity Act	1972	Gratuity for workers,

Building and Construction Workers Act	1996	Regularizing construction workers.
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Source: Compiled by researcher from various sources.

### 1.3.1 Social Security to the workers in the Organized Sector

In India currently only about 69 million out of a workforce of 460 million have access to formal social security in the form of old-age income protection. This includes private sector workers, civil servants, military personnel and employees of State Public Sector Undertakings. Out of them majority of workers are members of the Employees' Provident Fund Organization (EPFO). As such the current publicly managed system in India is entirely anchored by the EPFO. It may be noted that in the last 50 years, the EPFO has been in existence, there has been no instance of any scam or a situation where the Fund has been exposed to speculation and risk. Another important contribution of EPF is now proposed to extend to the critical life benefit of providing shelter.

As mentioned above that the social security of the formal sector workers is provided through the instrumentality of EPFO and Employees' State Insurance Corporation (ESIC).

Social Security to the workers in the organized sector is provided through five Central Acts namely: -

1. The Employees' Compensation Act, 1923 (WC Act), which requires payment of compensation to the workman or his family in cases of employment related injuries resulting in death or disability.
2. The Employees' State Insurance Act, 1948 (ESI Act) which covers factories and establishments with 10 or more employees and provides for comprehensive medical care to the employees and their families as well as cash benefits during sickness and maternity, and monthly payments in case of death or disablement.
3. The Employees' Provident Funds & Miscellaneous Provisions Act, 1952 (EPF & MP Act) which applies to specific scheduled factories and establishments employing 20 or more employees and ensures terminal benefits to provident fund, superannuation pension, and family pension in case of death during service. Separate laws exist for similar benefits for the workers in the coal mines and tea plantations. The Maternity Benefit Act, 1961 (M.B.

Act), which provides for 12 weeks wages during maternity as well as paid leave in certain other related contingencies.

4. The Payment of Gratuity Act, 1972 (P.G. Act), which provides 15 days wages for each year of service to employees who have worked for five years or more in establishments having a minimum of 10 workers.

The civil servants' pension is covered under Central Civil Services (Pension) Rules 1972. Separate Provident fund legislation exists for workers employed in Coal Mines and Tea Plantations in the State of Assam and for seamen.

### **1.3.2 Social Security to the workers in the Unorganized Sector**

Approximately 85% of India's 460 million strong labor forces are categorized as 'Unorganized sector' workers. As the National Commission for Enterprises in the Unorganized Sector (NCEUS)(Report on conditions of work and promotion of livelihoods in the unorganized sector, 2007) argues, the unorganized sector workforce does not enjoy three types of social protection –

- employment security (no protection against arbitrary dismissal)
- work security (no protection against accident and health risks at the workplace)
- Social security (health benefits, pensions, and maternity benefits).

In the spirit of extending social security to the unorganized sector and keeping in mind long term demographic trends which indicate a rapidly ageing population and a non-declining unorganized sector workforce, the Government of India passed the Unorganized Workers' Social Security Act (UWSSA) in 2008. The passage of the UWSSA also tied in with the introduction of several publicly provided, social security schemes in the insurance and pension sectors, the three predominant schemes being

- Rashtriya Swasthya Bima Yojana (RSBY), a national health insurance scheme largely for the below poverty line population;
- Aam Aadmi Bima Yojana (AABY), a life insurance scheme;
- National Pension Scheme(NPS), Pension Schem

The table below lists the various schemes in India for the unorganized sector workers.

**TABLE 1-7 : List of various Schemes enacted for Unorganized sector**

<b>Unorganized Sector Social Security Net</b>		
<p><b>National Social Assistance Programme</b></p> <ol style="list-style-type: none"> <li>1. Indira Gandhi National Old Age Pension Scheme.</li> <li>2. Indira Gandhi National Widow Pension Scheme.</li> <li>3. Indira Gandhi National Disability Pension Scheme.</li> <li>4. National Family Benefit Scheme.</li> <li>5. Annapurna Scheme.</li> </ol>	<p><b>Worker Welfare Funds</b></p> <ol style="list-style-type: none"> <li>1. The Mica Mines Labor Welfare Fund Act, 1946.</li> <li>2. The Limestone and Dolomite Mines Labor Welfare Fund Act, 1972.</li> <li>3. The Iron ore, Manganese ore and Chrome ore Mines Labor Welfare Fund Act, 1976.</li> <li>4. The Beedi Workers' Welfare Fund Act, 1976.</li> <li>5. The Cine Workers' Welfare Fund Act, 1981.</li> </ol>	<p><b>Government Sponsored Socially Oriented Insurance Schemes</b></p> <p>LIC Administered Schemes</p> <ol style="list-style-type: none"> <li>1. Aam Aadmi Bima Yojana(AABY).</li> <li>2. Janashree Bima Yojana (JBY).</li> <li>3. Shiksha Sahayog Yojana (SSY).</li> <li>4. Micro-Insurance Products Jeevan Madhur, Jeevan Mangal.</li> <li>5. Varishtha Pension Bima Yojana.</li> </ol> <p>AICL Administered Schemes</p> <p>Rashtriya Krishi Bima Yojana (RKBY).</p> <ol style="list-style-type: none"> <li>1. Pilot Modified National Agricultural Insurance Scheme (MNAIS).</li> </ol> <p>3.Pilot Weather based Crop Insurance Scheme (WBCIS).</p> <p>Others</p> <ol style="list-style-type: none"> <li>1.Rashtriya Swasthya Bima Yojana (RSBY).</li> <li>2.Handloom Weavers' Comprehensive Welfare Scheme.</li> <li>3.Handicraft Artisans'</li> <li>4.Comprehensive Welfare Scheme.</li> </ol>
	<p><b>Other Schemes</b></p> <p>National Rural Health Mission (NRHM) Schemes</p> <p>National Pension Scheme-Swavalamban</p> <p>National Scheme for Welfare of Fishermen and Training and Extension</p>	

Source: *Report on conditions of work and promotion of livelihoods in the unorganized sector. (2007)*

While these schemes represent an important step forward in India's ability to provide adequate, reliable, and affordable social protection options for its vulnerable population, they still suffer from considerable weaknesses.

### **1.5 Objectives of the study**

- Understand and analyze the existing most-relevant social security schemes in the areas of Life Insurance, Health insurance, Old age pension and Maternity benefit.
- Propose consolidation and universalization of the schemes where needed.
- Alleviate implementation complexities and streamline the implementation of various schemes
- To come up with alternate proposals and also figure out the premium rates and contributor of the premium.
- With respect to the above-mentioned objectives estimate the Government's financial commitments and burden.

### **1.6 Significance of Study**

Social security has different components in different forms adopted by different civilizations, societies and countries based on geographical, demographical, the socioeconomic conditions and temporal context. The main components that have been more or less common were derived from the fact that most vulnerable population should be protected from uncertainties. The vulnerable section of the society depending on age, occupation and gender plays a major role in the criteria of the social security schemes. As evident from section 1.4 that initially the idea was to provide protection to area specific population or people involved in specific occupation. But that became the biggest weakness in terms of universalization of social security schemes. Initially the scheme has been targeted to occupation specific individuals and those serving in organized sector and that's probably because the government was not capable of providing protection to the whole population using its own resources. The government of independent India in due course of time went ahead in identifying the vulnerable group of society without restricting them based on occupation for for example Maternity benefit as one of the schemes independent of any criteria. Based on the initiatives taken by India in the past and the evidence collected

from social security schemes from different countries we have concluded to have four main pillars to be included under social security umbrella for example Life Insurance, Health Insurance, Old Age Pension and Maternity Benefit. These are the four major areas that are found to be the most eligible for universalization. If these are universalized; major purpose of social security would be served. So, we have included these as the scope of this study.

## **1.7 Data Sources**

Study uses the secondary data, reported in various official statistics for evaluation, analysis and analytical framework. Below are the sources of data used in different contexts in the study:

- This study uses the census 2011 population data published by the Office of the Registrar General & Census Commissioner, India.
- Death rates are taken from Indian Assured Lives Mortality (2006-08) Ultimate published with the concurrence of IRDA vide its letter dated 20th February 2013.
- Health Insurance claim probability and average claim amount has been taken from Health Insurance (Non-Life) Data Analysis Report published by Insurance Information Bureau of India(<https://iib.gov.in/IIB>)
- For the calculation of old age pension benefit, the actuarial tables, published by the Actuary Society of India, are used.
- Government's budget is taken from RBI publications.

## **1.8 Research Methodology**

This study addresses the following points corresponding to the different category of schemes currently going on:

- Life Insurance: To cover the entire population, we propose to use the death rate age-wise and come up with the premium with the granularity i.e. for individual age group. To assess the budgetary load on the government, calculate the total cost of the benefit.
- Health Insurance: To cover the entire population for health insurance we have considered the age-wise distribution of the population, the claim probability for each

- age and the average claim amount for each age and calculated the total budget to pay the claims and the budgetary load on the government.
- Old Age pension scheme: Universalization of the old age pension scheme of the government by determining the contribution of the individual as well as of the government for fixed pension benefit.
  - Maternity Benefit insurance: Calculate the total cost of paying the maternity benefit for the child bearing female population.

## **1.9 Scope of the Study**

This study considers the main four components of the social security that covers the most critical vulnerabilities of the life of an individual:

- Life Insurance
- Health Insurance
- Old Age Pension
- Maternity Benefit

## **1.10 Thesis Outline**

**Chapter 1** gives an introduction and an overall picture of the study which includes the summary of study, statement of research problem. We have also taken the opportunity to introduce the term Social security with its evolution and chronological historical background in the same chapter. Data source and research methodologies followed in the study are also mentioned.

**Chapter 2** reviews the literature related to the subject. In this chapter we have listed down the excerpts from various sources which we have referred during the course of research. These references have helped in various aspects of our research for example understanding the components of social security, the scenario with respect to different countries and in India

**Chapter 3** reviews the experiences of existing social security programmes of selected five countries and India. The review of relevant existing security schemes in India with respect to Life Insurance, Health Insurance, Old Age Pension and Maternity Benefit and critically



evaluates the schemes and identifies the gaps thereof. These analyses of social security schemes have some justification from the viewpoint of democracy.

In **chapter 4** we have proposed new product design for comprehensive social security, based on the critical evaluations in earlier chapter. We have calculated the cost of life insurance benefit for the entire population. Health insurance, which is another the most important component of proposed comprehensive social security. The cost is calculated based on the claim probability and average claim amount for the whole population in India. For Old age pension benefit, the financial cost of the program is calculated based on current available benefit in the Atal Pension scheme. The overview of JSY (Janani Suraksha Yojana) is explained for the maternity benefit and the expansion of current scheme to all fertile female population up to two children.

**Chapter 5** presents the conclusions drawn by comparing the budgetary load with the country's budget to understand the feasibility of the proposals. Individual cost is calculated and also calculated the cost for providing the benefit to the entire population is presented in this chapter. Questions of budget constraints are also addressed.

**Chapter 6** provides the findings of the thesis, limitations of the approach and concluding comments are provided in this section.

## **Chapter 2**

### **Review of Literature**

#### **2.1 Introduction**

- Review of social security schemes of selected countries of the world.
- Review existing social security schemes in India.
- Reviews of relevant literature from authors, economists and researchers on social security.

As mentioned above, in India, in keeping with its cultural traditions, family members and relatives have always taken care of shared responsibility towards one another. This is often the best relief for the special needs and care required by the elderly and those in poor health.

However, with increasing migration, urbanization and other demographic changes, there have been a decrease in joint family units and increase in nuclear families. This is when the need of a formal system of social security gained importance.

Social security schemes in India provide the benefits that are need based. They are intended to prevent deprivation, assure the individual of a basic minimum income for himself and his dependents and to protect the individual from any uncertainties. The state bears the onus of developing an appropriate system for supporting the people especially the workforce. It's intended to help facing the challenges of modernization and the changes in social and demographical changes in the society.

As the paper (Pillai, 2011) mentions that the social protection programmes in India can be broadly categorized as

- a. Improving living standards of the poor - programmatic framework,
- b. Targeted social security programmes for the very poor,
- c. Social security measures for unorganized/informal sector workers and
- d. social security measures for organized/formal sector workers

This chapter provides a survey of extant literature on universalization of social security. As mentioned earlier, the scope of the study confined to the four pillars of social security viz. Life insurance, health insurance, maternity benefits and pensions.

The main aim of the thesis is to examine the feasibility and sustainability of universalization of social security in India. The literature on social security encompasses a vast area including public policy, public finance, actuarial science, economics and finance. The “universalization “of social security and its financial feasibility is the subject matter of discussion, for this study. Hence the literature review focuses on:

- 1) Theoretical and empirical literature on definition of universalization of social security, desirability of universalization of social security
- 2) The recommendations of seminal reports on universalization of social security by international bodies like ILO and committees in India.

The first section of this chapter presents the academic literature on universalization of social security. The third section summarizes the findings of various committees on social security as a public policy to alleviate poverty.

## **2.2 Universalization of Social Security: Concept and Definition**

The recent literature on social security reveals certain distinct trends. First, there is a broad definition of 'all people', as the target group. The ILO in its definition of social security defines the target group as "the members of society", ILO (2011). Dreze and Sen discuss social security for "humanity", Dreze and Sen (1991). It is generally acknowledged that social security should cover all. The real thrust of most literature on social security is to analyze present coverage and to prescribe the means to meet the need of workers in the unorganized sector. These workers do not have steady employment, secure or sustainable incomes and are not covered by social security protection. In recent years, however, there has been an awakening of interest among policy- makers and academics on the one hand and a demand from unorganized sector workers themselves on the other, for economic and social security. The large gap between rich and poor, unorganized and organized workers, and developed and developing countries has led to various types of attempts at providing

social and economic security aimed at bringing some protection to the unorganized sector workers to narrow the gap.

This is an important issue because, both in Indian policy-making, and in the literature on social security there is no unanimity on the target group. In fact, the literature seems to be leaning away from the concept of social security for 'workers' or 'producers' and towards the 'poor' or the 'deprived' as a category to be covered. The new schemes in India, too, are moving away from the category of 'worker' as the beneficiary of the schemes and towards the 'poor and needy'. The definition of the beneficiary is not an academic question since it affects the benefits of the scheme, its financing, its management and its control.

The ILO (2000) has defined two broad groups according to the type of social security by which they are covered:

- social insurance -Social insurance covers workers of various categories;
- social assistance -social assistance covers persons with various disabilities - old age, sickness.

The two categories are of course not mutually exclusive as a worker may develop a permanent or temporary disability; and a person with a disability may also be a worker.

In the present context of social security in a developing or poor country, Indira Hirway (1995) makes roughly the same categorization of the target group - namely, "workers" and non-workers such as "the old, disabled and destitute, who need social protection very badly".

Dreze and Sen (1991) have a broader categorization of 'deprivation', the target group are the 'deprived', whereas both Atkinson and Hill (1991) and Getubig and Schmidt (1992) see the target group as the 'poor'. Getubig and Schmidt further break this down into various categories, some of which are work categories and some which describe vulnerability, as follows. Rural: Small-scale farmers, small-scale fishermen, landless laborer's, women headed households, and disadvantaged minority groups. Urban: Petty traders/street vendors, micro- entrepreneurs, casual and daily wage workers (construction, carpenters,

artisans), home-based workers (in food processing; subcontracting), domestic servants, and other small-scale self-employed.

There is, in the literature, an oscillation of all definitions of target groups between work definitions and vulnerability definitions. The work definitions include categories such as 'unorganized sector workers', 'informal sector workers', or groups such as 'home-based workers', 'casual workers', 'small farmers', etc.

The vulnerability definitions include categories such as 'the deprived' 'the poor'.

'Social Security, the Economy and Development', edited by James Midgley and Kwong-Leung Tang, (2008) reminds the importance of a sound social security system to the economic security of vulnerable populations in both developed and less developed countries. In this book, Tang and Midgley define social security broadly as "programmes that provide for the maintenance of income when specific contingencies arise or otherwise supplement the incomes of those who experience particular needs or demands on their income". He summarizes the arguments, put forward by (R M Titmus, 1973), that social security benefits should serve welfare and humanitarian goals, Although contemporary neoliberal economic views: programs transfer resources from productive to unproductive sectors, lowering market efficiency; provide disincentive to work; distort labor markets; and eventually harm economic growth. Thus, instead of economic purposes, considered social security is economically harmful.

### **Desirability of Universalization of Social security**

The committee report (Mor & Ananth, 2007) says that the need of inclusive financial growth and says that besides facilitating overall economic growth, finance can help individuals smoothen their income, insure themselves against risks and broaden investment opportunities. Empirical evidence shows that inclusive financial systems significantly raise growth, alleviate poverty and expand economic opportunity. This paper goes on to lay out several principles that should be kept in mind when designing such systems.

(Pryor, 1968) says that virtually all advocates of the narrow social control perspective ignore the fact that most social security programs are universal among urban, industrial societies. That is, programs that provide at least a minimum level of income support (via

disability insurance, old age pensions, rent subsidies, family allowances and health insurance or service programs) are found in all capitalist, socialist, and communist forms of modern society.

Social security for all Indians edited by Wouter van Ginneken;1998 says that “Extension of formal social insurance is not the answer to the need of social security.

(Jaishanker Memorial Centre,1993; Patel,1993; Wadhawan,1989;) says that in addition, Social assistance-Financed by Government revenue and targeted to the poor-will have to be developed (Guhan 1993 and 1994), as well as social insurance schemes specially designed for unorganized workers (for instance Gupta,1994b; Subrahmanya,1994a)”.

Since major part of Indian population was not covered by social security protection. On the request of Ministry of Labor, the ILO undertook a UNDP (United Nation Development Program) financed mission on ‘Social protection for the unorganized sector’ and produced a report with extensive recommendations (ILO-South Asia Advisory Team,1996a).

In the article (Duggal, 2006) says that it is important to understand that a fragmented approach to social security makes it non-sustainable and hence need a rethink and pursue the option of categorizing the workforce under a common social security umbrella and also include the nonworking population to achieve a comprehensive universal system of social security.

In the paper (Norton, Conway, Foster, & Expenditure, 2001) defines the social security and establishes reasons for the need of social security across the cross section of the society. The problems covered under social security and the way they are covered. It has given recommendations to provide effective coverage.

Employment-based social insurance schemes typically provide coverage against unemployment, inability to work due to injury or ill health, and, ultimately, old age (in the form of pensions). Workers in the informal sector are not effectively involved in statutory social insurance schemes, for several reasons mentioned below:

- Firstly, premiums are beyond the financial reach of most of the poor. The problem is not only that total contribution requirements are too high, but that they do not take account of the variable income patterns of the poor.
- Most social insurance is based upon the principle of a ‘replacement wage’, with benefits paid at a set proportion (perhaps 75%) of the income lost due to inability to work. It is hard to define what the replacement wage should be for informal sector workers, particularly casual labourers, given the great variability in wages from one week or month to the next.
- Informal sector employers are generally outside the web of routine state surveillance and regulation.

The discussions on universalization are incomplete without the consideration of unorganized sector or informal sector workers due to the increasing proportion of unorganized sector employment. NSSO carried out a sample survey in 1999-2000 and its results showed that out of total workforce of 397 million, only 28 million workers are employed in the organized sector and remaining in the unorganized sector. It reveals that over a decade, the employment in the organized sector has been almost stagnant or slightly declined compared to the previous decades

The study (Gumber, 2002) says that workers in the informal sector do not get health care benefits, paid leave for illness, maternity benefits, insurance, old age pension, and other benefits though the informal sector constitutes around 90% of the workforce. It also reviews the current schemes in India and the other countries. It shows that the people in the informal sector are not covered by any type of social security protection, i.e. either by a contribution-based insurance scheme or by any social assistance scheme.

(Kalyani, 2016) mentions that about 370 million workers constituting 92% of the total workforce in a country were employed in the unorganized sector as per NSS Survey 1999-2000. It plays a vital role in terms of providing employment opportunity to large segment of the working force in the country and contributes to the national product significantly. The contribution of the unorganized sector to the net domestic product and its share in the

total NDP at current prices has been over 60% and hence the claim to provide protection to this section of the society cannot be ignored.

In the paper (Jhabvala, 1998) the author advocates the need of a social security system for unorganized workers. It went on to suggest that every individual in the society (including house maker women) has at some point of time, contributed to the society and hence can be termed as a productive worker and hence to be covered in some form or other of social security. It also suggests that the programs could be categorized under two categories namely social security (for active workers) and social assistance (for persons with disability). Hence this paper explores these possible mechanisms for social security provisions: insurance, social security funds and state supported child care.

In this paper(Balamurugan, 2015) Reviewed the schemes for unorganized sector and highlights the problem areas of the social security schemes such as:

- Fragmented Ownership Structure and Lack of Coordination
- Wide Disparities in the Coverage of Social Security Schemes
- Low Levels of Product Innovation, Development and Learning
- Problems with Identification of Beneficiaries
- Multiple Window Architecture

The study concludes that the social security initiatives of the Centre, and State indicated that the needs are much more than the supports provided. We must create a setup where all the people could maintain an adequate standard of living consistent with social norms.

### **2.3 Scope and Target of social security**

As established above that there is a need to provide social security in an organized way and more by way of universalization so that all the vulnerable sections of society are covered without any scope of ambiguity. Social security encompasses various types of schemes in different countries. And the definitions have also been changing and adopted by them.



In case of developed countries where social security is generally seen in terms of specific public programmes involving social assistance, social insurance, and redistribution (Atkinson 1989; Kotlikoff 1987). For developing countries, the fact that few programmes of this type exist, and those that do often have low or poorly directed coverage (Midgley 1984; Puffert 1988), suggests that a definition along these lines would be too narrow. Increases in social security may arise in ways which are not simply enacted or imposed by government. A definition based on State programmes fails to consider household and community contributions and their interactions with State provision and may miss the important role of public pressure (Drèze and Sen 1989; Bardhan 1988; Lewis et al. 1988). Even within the sphere of State action, there is no clear indication that social security in developing countries should take the same form as it has taken in developed countries. Given the greater problems of insecurity, limited administrative resources, and tightness of budget constraints in developing countries, doubts have been expressed as to whether conventional social security measures are operationally tenable or financially viable.

The ILO's Conventions on social security adopted before the Second World War have been revised and superseded by new and more comprehensive Conventions, providing a distinction between the 'social insurance era' and the 'social security era' during and after it (Otting 1993).

The ILO conventions on social security are the main reference for the content and components of this right to social security. The ILO Convention No. 102, Social Security (Minimum Standards) Convention of 1952, has played an important role in the extension of social security. Convention No. 102 covers primarily covers the following:

- Sickness benefit,
- Old-age benefit,
- Maternity benefit,
- Survivors' benefit.

Old age benefit or Pension benefit has been one of the major components recommended and focused upon in many countries.(C.D.Daykin, 1996) mentions that there is currently an enormous level of interest, in many countries around the world, in encouraging the development of complementary pension schemes, or in putting in place a new framework

for such schemes. They are increasingly seen as being an important part of the solution of problems facing social security schemes, which include the rapid ageing of populations, over-generous benefit promises, and unduly low retirement ages and, in some cases, restricted coverage, inefficient administration and problems of contribution collection. Complementary pension schemes are also seen as having an important part to play in economic development, in support of privatization programmes and as generators of capital investment.

The paper by (Laaser, 1967) recommends that the Extension of social protection in health is a key strategy to remove financial barriers to health services and to protect people from the impoverishing effects of catastrophic health expenditures, thereby reducing poverty. The healthcare financing system has a direct impact on the accessibility of care for people in need. Poor access to health services rapidly leads to poverty and smaller future chances for a decent standard of living.

Article 9 of the International Covenant on Economic, Social and Cultural Rights (“International Covenant on Economic, Social and Cultural Rights,”). provides that the right to social security encompasses the right to access and maintain benefits, whether in cash or in kind, without discrimination in order to secure protection, from (a) lack of work-related income caused by sickness, disability, maternity, employment injury, unemployment, old age, or death of a family member; (b) unaffordable access to health care; (c) insufficient family support, particularly for children and adult dependents.

Historically in India the schemes initiated, albeit in a segmented manner, covered factory employees.(Cohen, 1953) indicates that the first major social security program in south-east Asia came into operation in India on February 24, 1952. The program, which was initiated on a limited basis, covered about 2.5 million factory employees. The Employees’ State Insurance Act, which established the program, provided for medical services, continuing cash benefits due to employment injury or death, cash sickness benefits during periods of wage loss, and cash maternity benefits. So, these four benefits have always been the focus of the Indian government and hence the social security programs have always been designed and implemented around the same.

While the social security model of developed nation can be followed by the developing nations but the paper (Ehtisham Ahmad, 2015) says that not all of the policies used in developed countries are relevant for developing countries. Thus, administrative constraints and the effects on incentives to work dictate that unemployment insurance may be inappropriate even in the more advanced developing countries with established formal programs. The paper suggests that the schemes targeted towards sick and old people should be given priority.

The size of the resource base is critical and for this reason it is essential to examine how different social-security schemes interact with the tax system, other governmental programmes, and informal support (Ahmad 1989). Despite numerous calls for formal and informal social-security systems to reinforce each other (Midgley 1984), there is little research on the relationship between the two (Cox and Jimenez 1989).

Targeting has recently come to be seen as a major mechanism by which costs can be contained whilst still providing government assistance to those in need (World Bank 1986, 1988b), and a spate of mainly theoretical papers reflect the perceived importance of this issue (for example, Besley and Kanbur 1988; Besley 1989; Glewwe 1989; Kanbur 1988; Nichols and Zeckhauser 1982; Ravallion and Chao 1988). Irrespective of the measure which a government chooses to adopt (Ahmad 1989; Weisbrod 1988), it is confronted by a basic dilemma which arises when it tries to provide assistance. If, on the grounds of equity with respect to some service, or on the grounds of rights, it tries to make the service available to all people then the costs are likely to be very high and there will be several 'non-deserving' beneficiaries. On the other hand, if a stringent selection procedure is imposed this will increase the probability that deserving individuals are excluded. Targeting refers to procedures designed to concentrate provision on those individuals who are deserving or needy. There are also important arguments for and against targeting which are based on the need to gather political support for programmes. This can lead to arguments for universal entitlement.

So, in totality it's a focus-seeking area to include all the needy or otherwise deserving population as the beneficiary to have a wider coverage of the social security schemes and the issue of universalization is addressed.

## **2.4 Who should provide the social security?**

After deliberating over the justification of the need of social security and establishing what might be the components of it we also need to know who the provider of the social security should be especially the contributor of the premiums or claims of the insurance schemes to enable the social security.

In 2001 the International Labour Conference, composed of representatives of States, employers, and workers, affirmed that social security is a basic human right and a fundamental means for creating social cohesion.

Article 9 of the International Covenant on Economic, Social and Cultural Rights (the Covenant) provides that, ‘The States Parties to the present Covenant recognize the right of everyone to social security, including social insurance.’ The right to social security is of central importance in guaranteeing human dignity for all persons when they are faced with circumstances that deprive them of their capacity to fully realize their Covenant rights.

Contributory or insurance-based schemes such as social insurance, which is expressly mentioned in article 9, generally involve compulsory contributions from beneficiaries, employers and, sometimes, the State, in conjunction with the payment of benefits and administrative expenses from a common fund; Non-contributory schemes such as universal schemes (which provide the relevant benefit in principle to everyone who experiences a particular risk or contingency) or targeted social assistance schemes (where benefits are received by those in a situation of need). In almost all States parties, non-contributory schemes will be required since it is unlikely that every person can be adequately covered through an insurance-based system.

The composition from (Saul, Kinley, & Mowbray) says that the right to social security requires, for its implementation, that a system, whether composed of a single scheme or variety of schemes, is available and in place to ensure that benefits are provided for the relevant social risks and contingencies. The system should be established under domestic law, and public authorities must take responsibility for the effective administration or supervision of the system to ensure the schemes are sustainable.

The chapter in the material (Ehtisham Ahmad, Jean Drèze, John Hills, 2014) book helps to understand the term social security with respect to problems in developing countries. It also recommends that the State should be involved in social security and provide reasons for intervention of the government. It looks at issues concerning rights of individuals, and State obligations in that respect, and at the concept of standard of living and the role of the State in improving it.

Most developed countries have government-operated or - supported programmes to provide all or most of the following: old-age pensions; unemployment benefit; family income support; facilities for the infirm or disabled; education; and health services (Atkinson 1989; Barr 1987). The mechanisms, eligibility, entitlements, coverage, administration, and levels of benefits vary greatly, but nevertheless there is a considerable degree of support for those who may suffer deprivation or adversity.

The papers (E Ahmad, Drèze, Hills, & Sen, 1991) (Ehtisham Ahmad, 1991) suggests that to some extent, the social security programs as well as social insurance schemes may be financed by contributions and by pooling risks across generations and groups. But minimum noncontributory pensions targeted solely by age would need to be funded through general revenues. There is an urgent need to provide an effective safety net for the poorest in societies ranging from socialist countries undergoing reform to Sub-Saharan African economies. This study examines social security systems in industrial countries and explores their relevance to developing countries

The paper (Ozawa, 2015) discusses that social security is not a private insurance program but a public mechanism to transfer income from the working population to groups of people who are afflicted by risks identified under the law. It says that social security, as one type of social insurance, has dual missions to accomplish: one to replace a part of earnings loss due to social and economics hazards identified under the law, and the other to provide an adequate floor of income.

The paper (Norton, Conway and Foster, 2001) relates to the role of the state and other institutions in the provision of social security in developing countries. The financial

constraints faced by most developing countries imply that social security provision should have both civil and public dimensions.

As mentioned by Cerda (Cerda, 2005) that in Financial crisis in social security programs might be endogenous because social security affects fertility and human capital's decisions and thus, the aggregate growth rate of the economy. These effects lead to an endogenous erosion of the financial basis of the Pay-as-you-go a.k.a. PAYG social security program so that, as a consequence, the PAYG system is not sustainable and it requires continuous increases in the social security tax rate.(Cerda, 2005).The main idea of the paper is that the social security financial crisis, at least a part of it, is endogenous to the system. The paper explains PAYG financial crises by extending previous results concerning the relation between social security, fertility and growth - see Becker et al. (1990), Cigno (1992,1995), Ehrlich and Zhong (1998), Nishimura and Zhang (1992), Veall (1986), Zhang (1995), Zhang and Zhang (1995,1999) and Wigger (1999).

The article by (Ehtisham Ahmad, 1991) tries to evaluate the social security of the poor in the developing world. This article provides deep insights about the issues which arise in the developing nations while providing the social security to the poor. The author points out that the main objective of social security to protect the poor and vulnerable during their difficult situations and support them through community welfare or public action. The author also points out that to implement the social security strategies used by industrial countries in the developing world is not much relevant due to difference in the economies. In case of developing countries according to author, Self-selecting employment schemes can provide a basic safety net and also be designed to retain workers and add to productive infrastructure. Formal programs to protect vulnerable groups, such as the sick and the aged, are also likely to have positive long-term consequences, reducing uncertainty and lessening the demand for larger family. These programs and schemes should be based on community arrangements and financing could be done by the Local Level Government Bodies.

(Cox & Jimenez, 1992) studies the relationship between social security and private transfers in developing countries by taking the case of Peru. Using the Peruvian Living Standards Survey the study finds out that the social security system is less effective in terms of delivering the benefits to the elderly crowd as private transfers from young to old were

20 percent higher without social security benefits. Finally, the author concludes that the Peruvian Government needs to consider the private transfer effect while implementing the policies for social security.

The study by (Gupta, 2011) discusses about the universalism of health care. Providing health care, a service commonly to all has been discussed both at national as well as international level and many debates are taking place regarding the same. The author discusses approaches considered regarding how to provide these health care services. First approach is promoting commercial sector for financing and provisioning for achieving universal access to health care. Second approach discussed is through public financing and private provisioning. The third approach refers to public spending and State provisioning. All these above approaches are based on financing structures. The experience of several middle and low-income countries with social insurance mechanisms for ensuring universal access, such as in Brazil and Thailand, has demonstrated that it does not meet the objectives of universal access. These countries have, therefore, moved to direct tax-based financing of provisioning of services. The us experience of private insurance with targeted, publicly funded social insurance and private provisioning shows how it drives up costs of care, raises issues of moral hazard, does not lead to comprehensive care and is exclusionary. The author also points out that though whatever efforts are taken to implement the universalism access still they fall short against the requirement and suggests that more grounded and contextually rooted approach to healthcare systems development will become possible soon as all will engage in transparent public discussion on the issue.

The safety net programmes, which are designed with three main purposes, protection (ex post), insurance (ex-ante) and poverty alleviation, offer help to households during a period of crisis. The study by (Dev, Subbarao, Galab, & Ravi, 2007), evaluates the efficiency, awareness, participation, targeting and distributive outcomes of these programmes, based on household/village-level surveys conducted in Orissa, Madhya Pradesh and Karnataka. In addition, the article pays special attention to the functioning of village-level institutions and social capital. Besides giving an overview of the risks and shocks faced by households in these states, the article shows that the current safety net programmes do not seriously address the health risks. The main findings were that the success of the safety net

programmes depends upon its institutional implementation which includes the local government bodies (PRIs). The household literacy level and cohesiveness among women are also the factors which contribute to effectiveness of such programmes. Another major finding was that there is a significant caste discrimination against SC/ST and minorities due to poor governance and lack of awareness among the tribal. Risk patterns vary by states, quartiles and social classes. The proportion of households that experience a health risk is much higher among the poorest quartile than for other quartiles, higher among scheduled castes and tribes than among other castes, and higher in Orissa than in other states. The study limits to four programmes namely PDS, AAY, SGRY and FFW. The policy implications suggested by the author were, immediate policy initiatives need to focus on improving the productivity of existing programmes by encouraging PRI institutions at the village level to promote awareness of programmes among poor households and especially correct the observed serious exclusion. The outreach of programmes to the poor must be tightened via improvements in approaches to targeting (so as to avoid inclusion errors), launch new programmes to cover uncovered risks (especially health risks). Most importantly the PRI institutions should be made accountable for better functioning of safety net programmes with possible external oversight, and work towards synergy between programmes and policies launched by the center and states to avoid duplication of efforts.

The article by (Kothari, 2014), talks about how important the implementation of right to social security is for developing countries. Lot of programs has been implemented in India in providing social security. Providing social security in terms of basic facilities like food, livelihood and education and other basic rights and not only in terms of income is the goal currently. The author points out that huge effort needs to be taken to increase the coverage of social security systems and reaching the needy and unreached.

(Tangcharoensathien et al., 2010) studied health financing reforms in seven countries in Southeast Asia which were into expanding pooled health finance and take a step towards universal coverage. The countries which are resource poor mostly rely on donor agencies for providing health facilities. Fiscal space and mobilization of payroll contributions are both important in accelerating universal coverage. The major lessons from this study are



there is a need to strengthen the primary health care as geographical access is a major constraint. Financial risk protection such as user fee exemption for the poor, effective identification of the poor and adequate subsidies to the poor can protect from financial catastrophe. The poor are adequately protected through tax schemes and thus partially subsidized schemes should be designed for the informal sector. Similarly the discussion paper by (van Ginneken, 2003) reviews the four main social security programmes, i.e. health insurance, pensions, unemployment protection and tax-based social benefits and outlines some key elements of different strategies which can be implemented at national and international level.

(Carrin & James, 2005) highlights the importance of the socioeconomic and political context, particularly in relation to the level of income, structure of the economy, distribution of the population, ability to administer and level of solidarity within the country, but also stresses the important stewardship role government can play in facilitating the transition to universal coverage via social health insurance. The author finds out that several factors were judged crucial in facilitating this transition: the level of income, the structure of the economy, the distribution of the population, the country's ability to administer Social Health Insurance, and the level of solidarity within a society. It is essential that policymakers take these factors into account and try to use them as policy levers. Improving administrative capacity and fostering a sufficient level of solidarity are among those factors that can be impacted upon more directly via government stewardship. Thus the article is concluded by mentioning that, while experience demonstrates that Social Health Insurance development in a particular country to a large extent depends on that country's own specific socioeconomic and political context, experience also shows how the transition to universal coverage is dependent on the government's stewardship of the health system.

## **2.5 Summary of critical evaluation of the current social security schemes in India**

Initiation of most of these schemes was done in an ad hoc and segmented manner based on the initiatives taken by individual Ministries. Hence these were not implemented with a holistic approach and has problems with identification of beneficiaries(Comprehensive

Social Security for the Indian Unorganized Sector ,The Ministry of Finance , Government of India, 2013). Following is the summary of the findings and recommendations from various sources:

1. It is important to understand that a fragmented approach to social security makes it non-sustainable and hence need a rethink and pursue the option of categorizing the workforce under a common social security umbrella and also include to the nonworking population to achieve a comprehensive universal system of social security.(Duggal, 2006)
2. The coverage of beneficiaries under most of the insurance schemes appears to be low(Choudhury & Srinivasan, 2011).
3. In life insurance schemes where claims ratio is relatively high, a significant portion of the claims is in the form of scholarships, which is not the primary objective of the insurance scheme(Choudhury & Srinivasan, 2011).
4. Bulk of the targeted population is not affiliated to any organized group through which these insurance schemes are operated(Report on conditions of work and promotion of livelihoods in the unorganized sector, 2007)
5. In case of health insurance, although both the Universal Health Insurance Scheme (UHS) and the Rashtriya Swasthya Bima Yojana provide insurance cover to the BPL population against hospitalization expenses, the UHS is likely to be less relevant in the presence of RSBY as there is no requirement of premium contribution in RSBY unlike UHS.(Comprehensive Social Security for the Indian Unorganized Sector Recommendations on Design and Implementation For submission to The Ministry of Finance , Government of India, 2013)
6. There is a small overlap also for example in life insurance; it is potentially possible that a rural landless household is covered under AABY as well as the life insurance schemes for specific occupational groups and schemes implemented in different states. (Sharma)

## **2.6 Summary of literature review**

Based on the reviews, we have conducted or studied above, below are the takeaways that can

serve as improvements needed in the current social security measures in India.

- Need for consolidation or universalization of the schemes.
- Inclusion of non-BPL.
- Provider should be identified and justified, and state has an important role to play in it.
- Understand and workout the financial commitments and cost.
- Target population definition should be unambiguous.
- Comprehensive social security under this scheme should include life insurance, health insurance, old age pension benefit and maternity benefit.

This chapter provided the definition of universalization in the literature, the desirability of universalization in the extant literature and the recommendations of various committees. The Literature review focuses on universalization from the perspective of public policy. These references have helped in various aspects of our research for example understanding the components of social security, benefits and gaps of such schemes in India and the provisions of social security have some justification from the viewpoint of democracy.

## **Chapter 3**

### **Experiences on Existing Social Security Programmes of Selected Countries and India**

In this chapter the relevant social security schemes of the selected countries as well as of India are listed along with the features of those that help in studying the social security scenario.

#### **3.1 Overview of Social Security Schemes of other countries**

The empowerment of the poor and their participation in the process of development appear to have been of crucial importance in countries which have had some success in the provision of social security (Drèze and Sen 1989; Caldwell 1986; Lewis et al. 1988).

All countries of the world have some or other types of social security programs. Some programmes are several decades old while some are of recent enactments, which are constantly undergoing change. The experience of other countries in designing and applying social security measures provide a useful perspective on alternate solutions to the problem common to all social security systems. In this section the social security programs of the particular chosen countries, are listed with their salient features. The sample set represent a good mix of developed and less developed countries. The rationale behind including the particular countries in our study for the purpose of reviewing their social security system and understanding the nuances of those to help us evaluating and benchmarking the Indian social security schemes based on them, is as follows:

- USA is an undisputed choice to be studied for social security for USA is the modern and biggest economy of the world and also the biggest driver of several economies of the world. It has been the front runner in protecting the citizen's rights and taking care of their welfare.
- Germany, an industrial country with labor intensive automobile factories and the native place of Otto von Bismarck, because of whom, Germany became the

first nation in the world to adopt an old-age social security program in 1889. So the Germany is chose in this study's evaluations.

- Large Asian country China and successful cases of Brazil both of them being part of the group called BRICS countries, the informal group India also belongs to, because of some-what similar evolution of the economy, have been chosen to be the part of the study. An early example of an insurance-like system was China's Cooperative Medical System, which at its peak in the 1970s was estimated to cover 90 per cent of the rural population using a combination of compulsory prepayment by the residents, village contributions, and general revenues (Keefe & Palacios, 2006).
- Britain, obviously the one learned from its native William Henry Beveridge who has formalized the need and criteria of social security, is chosen. This is so we include the country that's supposed to have an experience of implementing social security for a long time and supposed to have a matured system in place.

The demography of these countries viz-a-viz India is presented next.

**Table 3-1: Demographic and Other Statistics Related to Social Security,2013**

Total Population (million)	Percentage 65 or older	Dependency ratio	Life expectancy at birth(years)		GDP per capita (US\$)
			Men	Women	
1354.1	8.2	39.1	72.5	75.9	3267
1214.5	4.9	55.6	63.7	66.9	1017
195.2	6.9	47.9	70.2	77.5	10,278
312.2	13.1	49	76.4	81.2	42,486
80.62	21.1	52	78.6	83.3	43,332
64.1	17.5	54	79.5	83.6	36,209

SOURCES: United Nations Population Division, Department of Economic and Social Affairs. World Population Prospects: The 2008 Revision Population Database

To have a better understanding of the terms used in the tables, please refer to the section named 'Terminologies Explained' in section#1 in the Appendix.

About the table above, the dependency ratio and percentage of population above sixty-five years of age, is more in case of India that looks to be crushing the working population. Life expectancy numbers for the other countries are inspiring. Though GDP per capita of these countries are more than that of India's and we are not going to deal with increasing that, in this study, but we must find ways to address the social security issues that too for a population of what India has now.

The social security programs of each of these countries are presented in the individual tables that are added in the annexure. The tables include details with respect to each of the welfare scheme, the criteria of the population covered, source of funds and the benefits under the scheme.

### **Understanding China's Social Security System**

The social security system in China is based upon guidelines issued by the central government, with the specifics managed at the local level. By the end of 2013, 1360 million people were covered under Chinese social security (Social Security Individual Accounts in China: Toward Sustainability in Individual Account Financing Tianlong Chen 1,\* and John A. Turner 2, 7 August 2014). China spends 3.7% of GDP on social security. ("Social Security Deptt, ILO," 2017.) (Security Administration, 2017)

The programs have two components for example Social insurance and mandatory individual account and the benefits are as follows.

#### **Pension**

It operates by receiving contributions monthly from both the employee and the employer. The portion contributed by the employee goes into a personal fund that the individual can draw from, after the retirement, directly. In contrast, the contributions made by the employer go into a social pool. Funds in this pool are distributed to all citizens that have made contributions into the system during their working life. In this way even, citizens that have used up the personal portion of their pension will have some income on which to support themselves. In terms of the amount of contributions that need to be made each month by both employee and employer, pension is generally the largest component of

social insurance. The salaried individual contributes 8% of gross earnings while self-employed person pays 12%, the employer pays up to 20% of payroll and the government provides subsidies as needed. The minimum pension (the combined social insurance and mandatory individual account pension) is normally 40% to 60% of the average monthly local wage during the previous year, depending on the region.

### **Medical insurance**

Unlike in some countries where medical treatment is provided for free, in most cities in China the patient is required to bear a certain percentage of the total hospital fee. The fund receives contributions from salaried individuals (2% of gross earnings), self-employed (about 10%), roll the employer pays 6% of the payroll while the government gives concessions and subsidies.

The benefits are 60% to 100% (according to length of service) of the insured's last monthly wage is paid for up to six months each year; thereafter, 40% to 60% until the employee recovers or is assessed with a permanent disability. In addition, each month individuals receive a small amount of money onto their medical insurance card. The funds can be used to purchase medicine or other goods at pharmacies, or to pay small medical expenses at hospitals.

### **Maternity Insurance**

Contributions to maternity insurance are made by employers only. In the event that an employee becomes pregnant, she will be entitled to receive a lump sum to defray some of the costs of the childbirth. During the period of maternity leave from the company the maternity fund will cover payment of salary.

It provides for paying 100% of the enterprise's average monthly wage for the previous year is paid for up to 98 days for the birth of a child, including 15 days before the birth (an additional 15 days for complicated deliveries), 42 days for an abortion or miscarriage that takes place after at least four months of pregnancy, and 15 days for an abortion or miscarriage that takes place after less than four months of pregnancy.

Additionally, the employers in all major cities are expected to make a contribution towards unemployment insurance and most cities also require a contribution from the employee. In the event an individual becomes unemployed they will be able to make a claim to receive unemployment benefits. The benefits can be received for a maximum of 24 months.

The main threat to the China's social security is, as nearly a third of the inhabitants of the China will be over 60 years old by 2050, according to United Nations data so the contributors are going to be far less than the ones who would avail of it. ("China's Pension Gap Is Growing as Aging Becomes Economic Risk - Bloomberg," 2017)

### **Understanding UK's Social Security System**

("Social security expenditure in Scotland and the UK Social security expenditure in the United Kingdom, including Scotland," 2014) Britain has been the nation that has been modernized before any other country in the world; in fact, they are the ones who travelled across the globe spreading the trade and business. Britain as mentioned earlier has been the work place of Beveridge, who is the father of the social security.

Old age pension, disability, survivors, sickness and maternity benefits are the prime components of the social security in UK. The schemes have different level of contributions from the insured, employer and government as shown in the table in the annexure.

Total benefits and tax credits expenditure in the UK has increased more than 60 per cent in real terms since 1996/97, from £130 billion to £209 billion in 2012/13. In 2012/13 social security spending made up 31 per cent of government spending, equal to 13 per cent of Gross Domestic Product (GDP).

In 2014 OECD reported this figure was £495 billion, equal to around 20% of the GDP (Social spending is falling in some countries, but in many others it remains at historically high levels, 2014) And this stands to be competitive in comparison to other countries in the world (Spending, 2016). Out of this 'The family and children category of social protection' accounted for 10.4%, Pension accounted for 42.8% (highest of all) as reported by Office of National statistics (2014)



There are some reports urging the need to re-haul the scheme to make them sustainable in future especially with regard to the coverage the schemes provide. (“Social security system fast becoming unfit for purpose, says study | Politics | The Guardian,” 2016.)

### **Understanding Germany’s Social Security System**

The European nation Germany also has the social security system in place to provide various benefits. It spends 25% of the GDP on social security.( OECD Spending, 2016) and around 90% of population of Germany participates in social security. The German version of the welfare state includes a national pension plan, public healthcare and nursing care, unemployment benefits, work-related accident insurance, and welfare aid.

People with jobs must, contribute to four parts of the system, for health insurance, long-range nursing care, pensions and unemployment. These payments will usually come to about 40% of individual income, but the employer normally pays half of the cost.

#### **Health Insurance**

About 85% of the German population is insured under the GKV, Gesetzliche Krankenversicherung, the German version of a national health system. The sickness benefit is 70% of gross earnings (up to 90% of net earnings) is paid for up to 78 weeks in a three-year period for the same illness. The employer pays 100% of the insured’s earnings for up to the first six weeks.

Maternity benefit for female sickness fund members with an employment contract, is 100% of average net earnings (up to €13 a day from the sickness fund with the remainder paid by the employer) during the previous three months prior to maternity leave is paid six weeks before and eight weeks after the expected date of birth (a total of 12 weeks for premature or multiple births).

#### **Pension Insurance**

This statutory old age insurance fund ensures that employees can maintain an appropriate standard of living when they retire. Payments are generally made from age 65, and the

maximum payout currently amounts to some 67% of average net income during the insured's working life. ("Social Security and Employee Benefits in Germany," 2017)

Unemployment insurance can be received by persons who have paid their premiums for at least one year during the past five years.

The German social security system is facing problems due to the demographic change in the population. An increasing number of old people require a large part of the funds for pensions, healthcare, and nursing care while, the number of younger, contributors is shrinking, questioning the sustainability of the scheme.(Social Security in Germany, Internations Org)

### **Understanding Brazil's Social Security System**

The Social Welfare that exists today in Brazil was conceptualized in 1923. The fundamental principal of the system is Universal coverage and assistance, by which all citizens have access to social protection. Brazilian social security concept has two parts namely, Social insurance, where the contributions are required from the insured; Social assistance, where the government bears the total cost.(Overview Of Brazilian Social Welfare 2 Edition ,2013.) The expenditure on social security by Brazil stood at 14.3% in 2016.

The social security benefits in Brazil are categorized in the following parts:

#### **Retirement:**

It is the monthly payments for life, doled out to the insured due to age, contribution time, work disability or work done in activities subject to harmful agents.

#### **Pensions:**

In this type of benefit, there is only one form, which is the pension for death, awarded to the dependents of the insured for motives of death. The rights to this benefit go as follows: husband/wife/ companion; non-emancipated child under 21 and handicapped child of any age; father or mother; sibling under the age of 21 or handicapped of any age.

**Aids:**

Illness Aid: The benefit in the event when some form of physical or mental compromise hinders the insured work for more than fifteen days.

Reclusion Aid: The benefit paid out to the dependents of the insured that has been taken to prison, in the same conditions as pension for death.

Accident Aid: This benefit is a compensation that the insured receives when, after consolidation of the lesions resulting from accident of any kind, including work related, result in after effects that reduce the work capability of the insured.

Maternity Salary: All the women insured under the General Social Welfare Policy have the right to maternity salary during the period of 120 days.

Family Salary: It is paid out monthly to the employee, except domestic servants, and to the temporary worker, in proportion to the number of children up to the age of 14

The OECD report (OECD Economic Surveys: Brazil 2018, 2018) says that the pension system in Brazil is financially unsustainable. An in-depth reform is necessary and inevitable. The combined annual shortfall of the pension schemes is close to 4.5% of GDP, contributing substantially to the general government budget deficit. In addition, the old-age dependency ratio is increasing in Brazil. The population aged 65 and above will more than triple within the next four decades, increasing from about 7.6% of the population in 2010 to 38% by 2050.

**Understanding USA's Social Security System**

The Social Security System has been a large and visible part of the American financial system since the 1930s. When President Franklin Roosevelt signed the law, it was designed to be a financial security net for older Americans. The system was set up with workers paying into it and beneficiaries getting retirement and other benefits. Since then, the demographic base of the country has changed; the system has grown and become a visible and controversial topic. With the current government deficit, maintaining the financial integrity of the system has become an important political issue.

US spends 19.3% of GDP on Social Security (Society at a Glance 2016, 2016)

In 2018, about 63 million Americans will receive approximately one trillion dollars in Social Security benefits. (“Fact sheet Social security US,” 2018)

Like other countries Social insurance is contributory while Social assistance (for needy/helpless) doesn't need any contribution from the insured and is borne solely by the government. For social insurance, the salaried individual contributes 6.2% of his earning and self-employed person contributes 12.4%. The employer contributes 6.2% of the payroll and the government contributes a portion of the revenue from the earmarked taxes on social security.

(Ageing and Employment Policies: United States 2018)The controversy over the financial soundness of the system comes from the aging American population. Since the system is a pay-as-you-go one, the contributions of current workers are used to pay the benefits to those already retired and to accumulate for the benefit of those working. The difficulty comes from the reduction in the number of contributors for each person receiving benefits. Currently, there are only 3.3 contributors for each recipient and there will be only 2.2 contributing for each recipient in 2031.

Ultimately, to fund the retirements for today's workers, contributions must increase, benefits must decrease, the earnings on accumulations must increase or additional money must come into the system. The big debate currently raging is whether and how the current surplus being generated by income taxes should be used for this purpose. There are also proposals that would enable individuals to have more control over how portions of their funds would be invested.

### **3.2 Overview of existing social security schemes in India**

As mentioned above, in India, in keeping with its cultural traditions, family members and relatives have always taken care of shared responsibility towards one another. This is often the best relief for the special needs and care required by the elderly and those in poor health.

However, with increasing migration, urbanization and other demographic changes there have been a decrease in joint family units and increase in nuclear families. This is when the need of a formal system of social security gained importance.

Social security schemes in India provide the benefits that are need based. They are intended to prevent deprivation, assure the individual of a basic minimum income for himself and his dependents and to protect the individual from any uncertainties. The state bears the onus of developing an appropriate system for supporting the people especially the workforce. It's intended to help facing the challenges of modernization and the changes in social and demographical changes in the society.

As the paper (Pillai, 2011) mentions that the social protection programmes in India can be broadly categorized as

- Improving living standards of the poor - programmatic framework,
- Targeted social security programmes for the very poor,
- Social security measures for unorganized/informal sector workers and
- social security measures for organized/formal sector workers

### **3.2.1 Social Security schemes in Life Insurance in India**

The Government of India has been aware of the social security needs of the people since independence and has been striving to achieve the objective of the well-being of the people of the country. "This section of society (the economically poor), is not much attracted to the concept of insurance which has as its base the element of probability. The weaker section looks forward to immediate benefits and do not rely on deferred ones" [GIC 1995]. There have been various schemes based on different criteria, started at various points of time. Their motto is to achieve the objective which in some cases differs slightly in terms of the target population, the benefits promised etc. The reason for this is primarily attributed to the various lessons learned while following the path of social security by the means of the schemes introduced and implemented.

Out of the various schemes, the most recent ones that are properly architected and well-deliberated upon are Aam Aadmi Bima Yojana (AABY) and Pradhan Mantri Jeevan Jyoti Bima Yojan (PMJJBY).

### **Aam Aadmi Bima Yojana (AABY)**

In 2000, a scheme named Jan Shree Bima Yojana (JSBY) was started by government of India to cover the specific sections of the society based on the occupations they were into . Persons between 18 to 59 years of age and who are below the poverty line or marginally above poverty line were eligible to participate in the scheme. The premium for the scheme was ₹ 200/- per member, 50 % premium under the scheme was contributed from the social security fund set up in the year 1988-89 maintained by LIC. The balance 50% premium is borne by the member and/ or nodal agency.

In 2007, the scheme AABY was started specifically for the rural landless laborers. The head of the family or one earning member in the family of such a household is covered under the scheme. The premium of ₹ 200/- per person per annum is shared equally by the Central Government and the State Government. The member to be covered should be aged between 18 and 59 years. A separate fund called "Aam Admi Bima Yojana Premium Fund" was set up by Central Govt. to pay the Govt. contribution. The fund is maintained by LIC. A free add-on benefit in the form of a scholarship to children is also available under the Scheme. Later it was observed that this add-on benefit became the primary attraction of the scheme and promoted its adoption in the relevant cases. In 2013 it was decided to merge JSBY with AABY.

The scheme started with the intention to ensure the people especially the needy ones. Below are the details related to contribution, eligibility and the benefits associated with it.

**TABLE 3-2: Details of AABY**

<b>Source of contribution</b>	<b>Amount of contribution</b>	<b>Eligibility</b>
The total annual premium under the scheme is ₹ 200/- per beneficiary of which 50% is contributed from the Social Security Fund created by the Central Government and maintained by LIC. The balance 50% of the premium is contributed by the State Government / Nodal Agency	₹ 200/-	1. The members should be aged between 18 years completed and 59 years nearer birthday. 2. The member should normally be the head of the family or the earning member of the below poverty line family (BPL) or marginally

Source of contribution	Amount of contribution	Eligibility
/ Individual, as the case may be.		above the poverty line under identified vocational group/rural landless household.

Source: ("Aam Aadmi Bima Yojana(AABY)," 2014)

The benefits under AABY fall under different categories depending on the type of mishap the insured has undergone.

**Table 3-3 Categorical Benefits Of AABY**

Cause to claim the benefit	Benefit
Natural Death	30000/-
On death, due to accident	75000/-
Permanent Total Disability, due to accident (Loss of 2 eyes or 2 limbs)	75000/-
Loss of one eye or one limb, in an accident	37500/-

Source : ("Aam Aadmi Bima Yojana(AABY)," 2014) Scholarship benefits

#### **Shiksha Sahayog Yojana (SSY)**

Scholarship as a Free Add-on benefit will be provided to a maximum of two children of the beneficiary studying between 9th to 12th Standard @ ₹ 100 per month for each child payable half yearly – on 1st July and on 1st January, each year. (Press Information Bureau AABY.)

#### **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)**

This is a flagship scheme of the present government launched recently to provide the life insurance to every citizen of India by universalizing the life insurance and make it affordable. We have tabulated the information related to it below.

**TABLE 3-4: Details of PMJJBY**

Source of contribution	Amount of contribution	Eligibility
Insured Person	₹ 330/- out of which  Rs 289 would be charged as annual insurance premium by	The savings bank account holder of the participating banks aged between 18 years (completed) and 50 years (age nearer birthday) and who have given the consent to join the scheme during the 'enrollment period' are eligible to join the scheme.  The assurance would be terminated in the event of subscriber attaining an

	<p>LIC per member Rs 30 would be charged for reimbursement of expenses to Agents/Corporate/Micro/BC Rs 11 would go against Administrative Reimbursement Expenses to the banks participating in the scheme.</p>	<p>age of 55 years. As a matter of fact, joining the scheme after the age of 50 years is not possible anyway.</p>
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Source: ("Pradhan mantri jeevan jyoti bima yojana,")

The benefit under Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) is an assurance of ₹ 2, 00,000/- on the death of the insured member is payable to the Nominee.

### **Common challenges faced by Social Security schemes in Life Insurance in India**

There are different parameters that play different role in the success and popularity of the insurance schemes especially in the social security arena.

**Financial Literacy and Ignorance about the Schemes:** With a major part of population uneducated and have the information inaccessible making them unaware, the schemes in India are not very popular since the schemes are normally annual in nature and benefit with occurrence of death are not frequently visible and difficult to foresee so workers do not have much of an incentive to renew the policies and pay the premium.

An evaluation of the insurance scheme for khadi artisans highlights the resistance to premium contribution by artisans and the persuasion required to convince them for the outgo in their wages. (Choudhury & Srinivasan, 2011)

At times some secondary benefits play a major role in making the schemes popular among the population relevant with such benefit. For example the only incentive for workers to join the Jan Shree Bima Yojana scheme despite a wage cut is when they anticipate death in near future or have children studying in standard IX to XII and are assured of a scholarship of ₹ 1200 per year per child. This is possibly reflected in the fact that, on an average, more than a third of the claims under Janashree Bima Yojana are in the form of scholarships alone, which was not the primary objective of the scheme. (Choudhury & Srinivasan, 2011).



The population being targeted for the scheme is majorly in an unorganized kind of work to earn their living. Someone who doesn't have a guaranteed a two-square meal a day can't be expected to bear the premium.

In almost all schemes, organized groups like milk federations/unions, State Sheep and Wool Development Boards/cooperative societies, service centers and NGOs working with specific occupational groups are involved. Lack of belonging to any such groups adversely affects the coverage of the scheme. In general, the extent of coverage in many schemes is directly associated with the size of such organized groups in States. The relatively large coverage of life insurance for the BPL population in Andhra Pradesh through Self-help groups (SHGs) is an example of the expansion of coverage through an organized network.

Besides, in some schemes, only full-time workers are eligible (not part-time workers) and this reduces the coverage. The report of the National Commission for Enterprises in the Unorganized Sector (2007) highlighted that less than a third of the full-time handloom weavers in the country in 1995-96 worked under cooperative societies or under master weavers (structures through which the schemes for handloom weavers were implemented) and the majority were self- employed. Similarly, less than a third of the persons engaged in preparatory works in the handloom sector worked on a full-time basis.

Due to illiteracy there are problems in understanding the benefits of the scheme and the operational requirements like premium requirements and submission of claims along with required documents affects the success of the schemes.

### **Evaluation of Current Scheme**

There are a couple of parameters to adjudge the efficiency and effectiveness of an insurance scheme: universalization i.e. the extent of coverage across the population and across the States, suitability to the major population at large, the claims ratio (claim to premium ratio). The extent of coverage has direct implication for the level of public expenditure and the distribution of coverage helps to deal with the budget requirement for spending on insurance schemes. 'Claims ratio' provides reflects the utilization of premium expenditure. As mentioned above that there are currently two social security schemes supported by the government namely Aam Admi Bima Yojana (AABY) and Pradhan Mantri Jeevan Jyoti

Bima Yojana (PMJJBY). We have identified some of the gaps with them and listed them below.

### **Evaluation of AAM ADMI BIMA YOJANA**

- Universalization (the breadth of coverage):

There are specific occupations covered under Jayashree Bima Yojana (JBY)(erstwhile scheme merged with Aam Admi Bima Yojana (AABY) later) and Aam Admi Bima Yojana (AABY) and the list may not be exhaustive and may need revision from time to time. This leaves a scope of ambiguity.

Additionally, the number of rural landless households (population mainly covered under Aam Admi Bima Yojana (AABY) in the country is much larger than National Sample Survey Organization (NSSO) estimate (Choudhury & Srinivasan, 2011), which is quoted by Government of India in this context. Studies have indicated that NSSO's land and livestock surveys underestimate the proportion of landless households in rural India because of a methodological reason. As a result, in States like Andhra Pradesh where Aam Admi Bima Yojana (AABY) is implemented in a major way, the number of rural landless households covered under the scheme is double the National Sample Survey Organization (NSSO) estimate of the total number of rural landless households in the State.

- Fragmented coverage among the states:

In Aam Admi Bima Yojana (AABY) section#8 in the Appendix shows that the three states account for 70% expenditure by the Government of India which indicates that there are disparity and something missing with the other states.

The concentration of beneficiaries in specific States arises from two reasons:

1. Certain states have a larger concentration of the targeted groups. For example, in the case of Life Insurance Scheme for Active fishermen, coastal States have a larger concentration of the targeted group.
2. Certain states are more capable in reaping the benefits from these insurance schemes. In life and health insurance schemes, the capacity and involvement of the State and

implementing agencies like cooperative societies, Non-Government Organization (NGO), etc. is an important factor in determining the extent of coverage in selected States.

Importantly, in life insurance schemes, the share of scholarships in total claims is remarkably high. While the scholarship clause was introduced in life insurance schemes as an incentive for joining the scheme, a substantial proportion of claims is in the form of scholarships alone. The share of scholarships in life insurance schemes varied from 24 per cent to 57 per cent in 2007-08s (Choudhury & Srinivasan, 2011). In general, in 2007-08, the share of scholarships in total claims of Jayashree Bima Yojana (JBY) (for all the occupational groups together) is around 38 per cent. This fact requires attention since the primary objective of life insurance schemes was to provide financial support to family members of the poor and vulnerable sections of the society and scholarship benefit was added only as an additional incentive to join the scheme.

### **Evaluation of Pradhan Mantri Jeevan Bima Yojana**

- Breadth of coverage

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) covers the population of 18 to 50 years of age group and doesn't cover the whole working age group. A scheme covering 18 to 59 years of age group could be a complete one.

- Deficit between claims expected and premiums collected

As per the formula presented in the analytical framework section and the tables created based on the same in the Appendix's section#4 and section#5 in this work, it looks like there is a deficit between the claim amounts expected (based on the death rate) and the sum of premiums collected for the whole population.

To give an illustration of the same, look at the table below:

**TABLE 3-5: Indications of projected deficit of Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)**

Age group supported (in years)	Sum of claims expected (in ₹ Cr.)	Sum of premiums collected (in ₹ Cr.)	Deficit (in ₹Cr.)
18-50(the present supported group)	17644.7	17097.5	547
18-59 (extrapolated/extended group for calculations)	27484	19026.6	8457.4

As depicted in the table above the sum of claims under the PMJJBY for the population of 18-50 years of age (the age group supported by Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)) based on the death rate, comes to around ₹17644.69 Cr. while the premiums collected comes to around ₹17097.52 Cr. so there is a deficit of ₹547 Cr. moreover it only covers 18-50 years of age.

The fund allocated by the government of India for AABY in the budget 2016 is ₹450 Cr. So, the total expenses towards social security in life insurance contributed by government and individuals via AABY and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) come to around ₹17547 Cr.

If the Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) in the same form, extended to include 51-59 years of age group also, the total premium expenses (18-59 years of age group) comes to around ₹19026.68 Cr. while the total claims expenses come to around ₹27484 Cr. and the deficit will stand at ₹8457.4 Cr. which is huge.

- Every year renewal

Buy insurance and renewing it every year could be a big hurdle for many people. With Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), such is the condition that the subscriber would have to renew their policy every year and hence, a lot of subscribers may miss on renewal. This is one of the disadvantages of Pradhan Mantri Jeevan Jyoti Bima Yojana(PMJJBY).

- Low amount of insurance cover

With rising inflation, the value of money is decreasing every year. Two lakhs are not really a remarkable amount even for poor living in rural areas. If two lakhs do not hold much value as of now, imagine its value after 20-25 years. The government would have to increase the value of insurance cover if it must make this a popular welfare scheme in the long run.

- Universalization

Keeping in consideration the low amount of insurance cover and the scheme's attachment to Jan Dhan Yojana, the scheme is not applicable to the entire population. Only those who are living below the poverty line may get enrolled under the scheme, more so due to the low insurance cover amount. Thus, this scheme is not relevant for a bigger population.

- Scheme restricted to be linked to Jan Dhan Yojana

In continuation to the above point, linking the scheme to Jan Dhan Yojana would mean that the scheme narrows down its domain of coverage. Only those people who are enrolled under Pradhan Mantri Jan Dhan Yojana would be able to subscribe to Pradhan Mantri Jeevan Jyoti Bima Yojana.

Since this is a scheme linked to Jan Dhan Yojana, the payment of premium is linked to the Jan Dhan Account through ECS mode. No other mode of payment of premium narrows down the channel through which subscriber can deposit premium amount. If at any point, there is any problem with the saving account, the subscriber may not be able to pay their premium on time.

Overall, the scheme has been initiated to serve special purpose of providing insurance cover to those people who are not yet covered under any insurance scheme and we expect that this scheme would go a longer way in providing financial security to the needy section of society in times of their distress. Still, we need to wait and watch as to how this scheme reaches the needy and how the scheme is executed by the insurance agencies.(Pradhan Mantri Jeevan Jyoti Bima Yojana website.)

## **Conclusions drawn from evaluation of existing schemes**

Until recently, the initiation of most of these schemes was being done in a segmented manner based on the initiatives taken by individual Ministries. Identification of population groups for insurance schemes was primarily based on occupation. Almost all life insurance schemes and health insurance schemes with varying financial support from the Government of India have been initiated for specific occupational groups. Although earlier attempts have been made to provide life and health insurance for the BPL population, these schemes have been rather ineffective in terms of coverage.

An analysis of the extent of expenditure on insurance schemes by the Government of India indicates that the total budget expenditure on Aam Admi Bima Yojana (AABY) by Government of India in 2016-17 is about ₹450 crore which is minuscule as a percent of total expenditure. For most schemes, financial support was primarily in the form of premium contribution. For life insurance schemes, support was also provided through an indirect premium contribution by way of subsidization from the social security fund placed with Life Insurance Corporation(LIC). Indirect support to life insurance schemes through contributions from social security fund was only about ₹340 Cr. in 2014-15 and did not add significantly to the expenditure by the Government of India. See the table in the section#6 in the Appendix.

The coverage of beneficiaries under most of the insurance schemes appears to be low. In a number of schemes, the share of beneficiaries covered in the targeted population is not much. This fact points to the low reach of these insurance schemes in the targeted population. Also, in many schemes, a few States account for the bulk of the beneficiaries. The share of the top three States in total beneficiaries is significantly higher than the share of the target group in those States for many of the schemes. The time taken for the settlement of claims is also relatively high in many schemes. The bulk of the delay in settlement of claims is often in the process of submission of relevant documents, and not after the submission of claims. In some schemes, the claim to premium ratio is also low. In life insurance schemes where claims ratio is relatively high, a significant portion of the claims is in the form of scholarships, which is not the primary objective of the insurance scheme.

The performance of the schemes is affected by several factors Bulk of the targeted population is not affiliated with any organized group through which these insurance schemes are operated. This adversely affects the coverage. Also, illiteracy and lack of basic schooling lead to problems in carrying out the operational modalities of the schemes in terms of premium requirements and submission of claims with the relevant documents. Also, in life insurance schemes, as the benefits obtained in the event of occurrence of deaths or disability is not frequently visible, there is a lack of incentive to contribute premium annually. The only incentive for the workers to join the scheme is when death is anticipated, or workers have children studying in standard IX to XII and are assured of a scholarship of ₹ 1200 per annum.

In general, it may be helpful to consolidate the individual life insurance schemes for different occupational groups (and groups like the rural landless households) and provide a universal common life insurance scheme for the entire population.

Consolidating the schemes for the entire population is likely to be advantageous in two ways. First, it increases pooling of individuals and diversifies the risk associated with the insurance schemes. Secondly, the costs associated with identifying individual members in each of the targeted groups separately are likely to be reduced substantially. It may also be important to note that the Government of India has identified 45 occupational groups as 'weak and vulnerable' and whose workers are mostly either below or marginally above the poverty line (to be considered for insurance support). The inclusion of non-BPL workers belonging to these occupational groups further, may not only help in increasing pooling and diversification of the risk associated with these schemes, but also to ensure that the workers belonging to these occupational groups who are marginally above the poverty line do not fall below the poverty line in the event of unforeseen adverse circumstances. Also, implementing the common scheme through a single agency like a single Ministry of Government of India or a public trust as in the case of Aarogyasri in Andhra Pradesh will reduce the administrative and operational costs associated with these individual schemes. The common insurance scheme may also be universal in nature and not voluntary as is the case in most of the schemes currently. This will reduce the adverse selection problems associated with the voluntary nature of these schemes. Besides, a universal scheme is also

likely to generate more awareness about the scheme and make the benefits of the scheme more visible. The need for such universal life insurance schemes for the population has been felt at the policy level for long and is reflected in the fact that the National Family Benefit Scheme (now transferred to the State Governments) was introduced as early as 1995 to provide compensation to Below Poverty Line(BPL) families on death of the primary earning member. Several State Governments are already implementing life insurance schemes for the Below Poverty Line(BPL) population of their State. Recently, the Insurance Regulatory and Development Agency(IRDA) has also suggested the formulation of a comprehensive life and health insurance scheme for the Below Poverty Line(BPL) population. The need for such a universal life and health insurance scheme for unorganized workers

(about a third of whom are Below Poverty Line(BPL)) in India has also been argued by other studies (Mehrotra 2008). There are also other implementation issues that need to be investigated in the context of life insurance schemes. Experience from Aam Aadmi Bima Yojana(AABY) in Andhra Pradesh, indicate that the coverage of rural landless households under the scheme far exceeds the total number of rural landless households declared by the Central Government (based on figures from the National Sample Survey Organization(NSSO)). With earlier studies indicating that the number of landless households reported by the National Sample Survey is significantly lower than the actual number of landless households, the stated commitment of Government of India of covering 1.5 crore rural landless households may need to be reconsidered.

### **3.2.2 Social Security schemes in Health Insurance in India**

The whole world has been focusing on making the population disease- free and providing the health service to every needy and continuously striving towards that.

The idea of universal healthcare had its origins at the Alma Ata Conference in 1978, where Health for All was agreed upon by all of the 13,411 participants from different countries. The conference broadly defined health with a strong focus on universal primary healthcare (PHC) and equity. India too is a signatory to the Alma Ata Declaration which affirmed that health, which is a state of complete physical, mental and social well-being, and not merely



the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector. The Alma Ata declaration is considered to be an intellectual and moral leap forward for humankind.(Kurian, 2014)

The UN report (Transforming our world : The 2030 agenda for sustainable development) on the launch of Sustainable Development Goals says:

To promote physical and mental health and well-being, and to extend life expectancy for all, we must achieve universal health coverage and access to quality health care. No one must be left behind. We commit to accelerating the progress made to date in reducing newborn, child, and maternal mortality by ending all such preventable deaths before 2030. We are committed to ensuring universal access to sexual and reproductive health-care services, including for family planning, information, and education. We will equally accelerate the pace of progress made in fighting malaria, HIV/AIDS, tuberculosis, hepatitis, Ebola and other communicable diseases and epidemics, including by addressing growing anti-microbial resistance and the problem of unattended diseases affecting developing countries. We are committed to the prevention and treatment of non-communicable diseases, including behavioral, developmental and neurological disorders, which constitute a major challenge for sustainable development.

Similarly, the Ministry of Health and Family Welfare of India has the following as part of their vision statements.

- a. Ensuring availability of quality healthcare on equitable, accessible and affordable basis across regions and communities with special focus on under-served population and marginalized groups.
- b. Establishing comprehensive primary healthcare delivery system and well-functioning linkages with secondary and tertiary care health delivery system.
- c. Reducing Infant Mortality Rate.
- d. Reducing the incidence of communicable diseases and putting in place a strategy to reduce the burden of non-communicable diseases.

- e. Focusing on population stabilization in the country.
- f. Developing the training capacity for providing human resources for health (medical, paramedical and managerial) with adequate skill mix at all levels.
- g. Regulating health service delivery and promote rational use of pharmaceuticals in the country.

So, the focus on the health of the population is a matter of extreme attention both nationally as well as internationally. In the forthcoming sections, we will examine the health status of India as well as the area issues and policies and schemes that currently exist to address the problems.

### **Health status of India**

To take care of the health of citizens of the country and making the health services accessible to each one of them, there have been various initiatives taken, policies made, executed and accomplished. There are some areas where we have made significant progress while we lag behind in some.

While health status of a community or a country for that matter can be assessed in the absolute terms but given the living conditions exist in the world at large, it's normally the relative status vis-a-vis other countries in the world which help to infer the scope of improvement with respect to the ones that are performing better.

Most countries have enjoyed large gains in life expectancy over the past decades, thanks to improvements in living conditions, public health interventions and progress in medical care. Life expectancy at birth in India has increased by almost 25 years since 1960 to reach 66.3 years in 2012. Nonetheless, it still remains 14 years lower than the Organisation for Economic Co-operation and Development (OECD) average (80.2 years). (The Organisation for Economic Co-operation and Development (OECD))

The infant mortality rate in India has been reduced by half over the past two decades, coming down from 88.2 deaths per 1000 live births in 1990 to 43.8 deaths in 2012. Still, it remains more than ten times higher than the Organisation for Economic Co-operation and Development (OECD) average (4.0 deaths per 1000 births).

The percentage of low birth weight infants in India is also much higher than in Organisation for Economic Co-operation and Development (OECD) countries: 27.6% of newborns in India in 2011 were defined as having a low birth weight (weighing less than 2 500 grams) compared with 6.8% on average in Organisation for Economic Co-operation and Development (OECD) countries. While genetic factors play a role, the proportion of low birth weight infants is generally higher in lower-income families in India as is the case also in other countries. This indicates that it's related to the affordability of health care for the lower income families.

The availability of health facilities in India is comparatively much lower (about 1:1000 bed per population ratio) than the developed nations, about 7:1000 (WHS, 2009).

The data on morbidity in India is not available, however, the National Sample Survey Office (NSSO) data on proportion of Ailing Persons per 1000, reflects the extent of need for health care in India for various age groups.

PAP or Proportion (per 1000) of ailing persons (PAP) is one of the parameters to assess the health of the people in India is the number of people fall sick in a period under observation. Table 4-1 below shows the PAP during 15 days for various age groups.

**TABLE 3-6 : Proportion (Per 1000) of Ailing Persons(PAP) During Last 15 Days for Different Age Groups Separately for Gender: Rural, Urban.**

Age -group	Rural			Urban		
	Male	Female	Persons	Male	Female	Persons
0-4	119	86	103	111	117	114
9-May	65	50	58	87	71	80
14-Oct	43	47	45	57	53	56
15-29	35	57	46	38	59	48
30-44	60	94	77	71	126	98
45-59	109	163	135	173	239	206
60-69	247	270	259	331	379	355
70+	327	286	306	376	371	373
all	80	99	89	101	135	118

Source: NSSO 71th round report (Government of India Ministry of Statistics and Programme Implementation National Sample Survey Office, 2015)

- The table above shows the data of the people with respect to their age reporting ailments giving the age-wise cross-section of ailing people. The Proportion (per 1000) of ailing persons (PAPs) were found to be high for children and much higher for the higher age groups and low for the younger age groups.
- The data suggests that the PAP increases with age and highest for the age group of 70 plus. So, the vulnerable age groups need to be taken care of.
- The data also shows that for younger age groups, the PAP is higher in rural areas than that in the urban areas in India however, this trend reverts for the older age groups from age 45 years and above and we observe higher PAP in urban areas as compared to the rural areas.

The 71th round National Sample Survey Office (NSSO) survey 2015(*Government of India ministry of statistics and programme implementation national sample survey office, 2015*) also reveals following trends:

- The inclination towards allopathy treatment is prevalent (around 90% in both the sectors) and which in most cases is the costly treatment.
- Secondly the private doctors are the most important single source of treatment in both the sectors (Rural & Urban). More than 70% (72 per cent in the rural areas and 79 per cent in the urban areas) spells of ailment were treated in the private sector (consisting of private doctors, nursing homes, private hospitals, charitable institutions, etc. (Government of India, ministry of statistics and program implementation, National Sample Survey Office, 2015). But the cost of treatment is generally more in case of private doctors.
- The un-treated spell was higher in rural (both for male and female) than in urban areas. So the rural areas probably need reinforced focus.

So, the cost of treatment becomes a major hurdle in making the health services accessible to all especially the population in the rural area. The issues of health need deliberations and focus of authorities in India otherwise the situation will not improve and hamper the growth India envisages to achieve, and her ambition to join the league of developed nations, since one of the criteria of developed nation is the Human Development Index (HDI) score which

is a composite index that measures progress in the three basic dimensions that is health, knowledge and income(Human Development Index,United Nations Development Programme, 2014).

There is an absolute assessment of the health of India mandates the need to have a plan to address the issue. The first thing comes to the mind is the financial aspect of the plan. So, in the subsequent sections, we will understand how much the money is required for the treatments and where does it come from – when someone suffers from a disease in India.

### **Cost of treatment in India**

It is seen that expenditure on medicines consists of about three-fourths of total out-of-pocket spending. Financial reasons prevented around a quarter of the population from accessing health services. It was estimated that 35% of hospitalizations caused the respective families to be pushed into poverty. In real terms, it meant health payments pushed 60 million people below the poverty line, per year. To put this into perspective, it is equivalent to the total population of the United Kingdom (Kurian,2014).

As per the report of NSSO 2015, (Government Of India Ministry Of Statistics And Programme Implementation National Sample Survey Office, 2015)

- Average medical expenditure per hospitalization case: Higher amount was spent for treatment per hospitalized case by people in the private hospitals (₹25850) than in the public hospitals (₹6120). The highest expenditure was recorded for the treatment of Cancer (₹56712) followed by that for Cardio-vascular diseases (₹31647).
- Average medical expenditure per non-hospitalization case was ₹509 in rural India and ₹639 in urban India.
- As much as 86% of rural population and 82% of the urban population were still not covered under any scheme of health expenditure support. The government, however, was able to bring about 12% urban and 13% rural populations under health protection coverage through Rastriya Swasthya BimaYojana (RSBY) or similar plan. Only 12% households of the 5th quintile class (Usual Monthly Per Capita Consumer Expenditure) of the urban area had some arrangement of medical

insurance from a private provider. Hence the coverage seems less in the government supported health insurance scheme.

### **Health Spending – Who is financing health care?**

Total expenditure of health represents government expenditure on health, private expenditure on health, including externally funded expenditure on health. Sub-components of government expenditure on health (“social security expenditure”) and private expenditure on health (“out-of-pocket expenditure” and “private prepaid plans”) are also included.

The public expenditure on health has not only been recognized in fighting with major diseases like HIV/AIDS, tuberculosis, malaria, meeting the Millennium Development Goals (MDGs) targets, reducing poverty but also important for the industrial and economic development of a country (Hooda, 2013). It is argued that public health expenditure is one of the important components for the provisioning of health facilities which further result in better health outcomes.

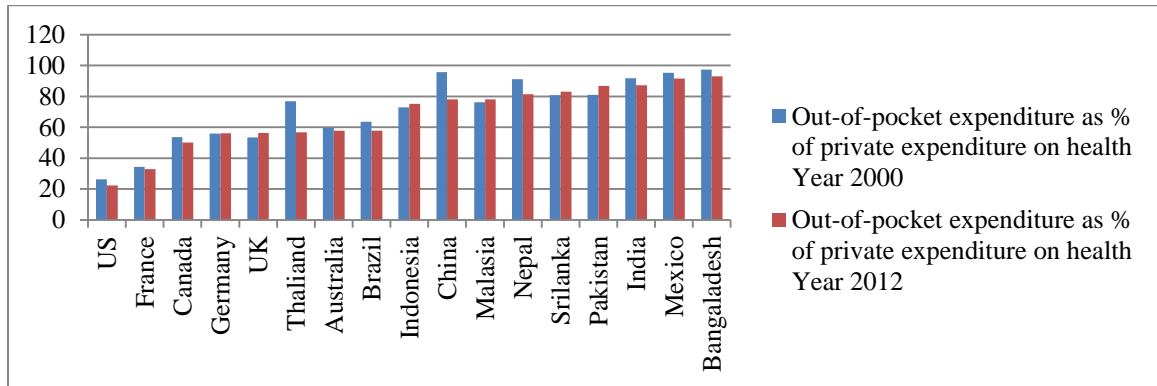
As we saw based on the initially presented Health status of India viz-a-viz World, the report card is not that great. To understand the reasoning behind the unsatisfactory nature of health outcomes, one needs to know whether India spends a sizeable amount of public funds in health and whether the funds allocated properly. We also must compare the India's level of health spending with the international level of health spending and does the level of health spending is adequate to meet the required provision of basic health services in the country and the population our country has?

It is established that the countries with high level of public spending in health have secured better health outcomes compared to the countries with low level of spending in health (Mills, Amoako, & Kato, 2002). Thus, the size of the public fund in health sector matters for better health outcomes. Beside the level of spending, health outcomes are most affected by allocation pattern of public funds in the health sector (Hooda, 2013).

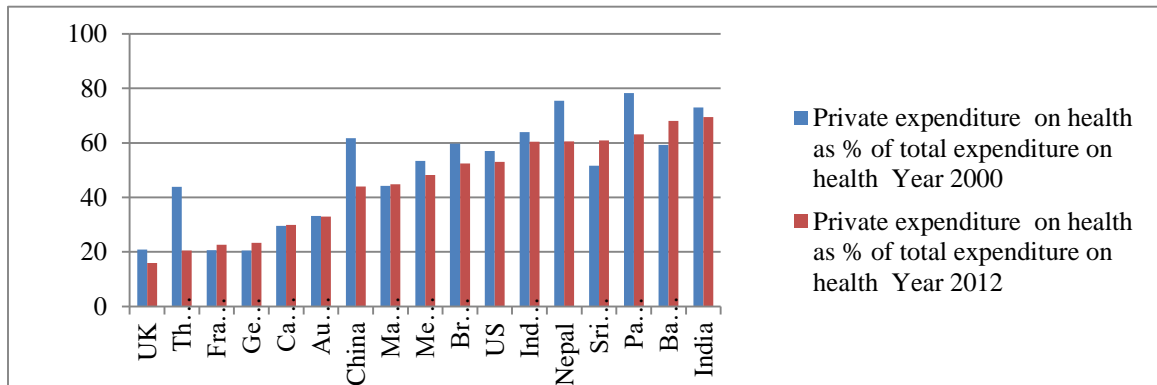
As a general observation, the developed countries spend a high amount on health both as a percent of GDP and out of their total budget compared to the developing countries. The variation in public health spending ranging from 2.8 per cent to 17 per cent of GDP and

the general government expenditure on health as a percentage of the total expenditure on health varies from 4.3 per cent to 20 per cent out of total government expenditure.

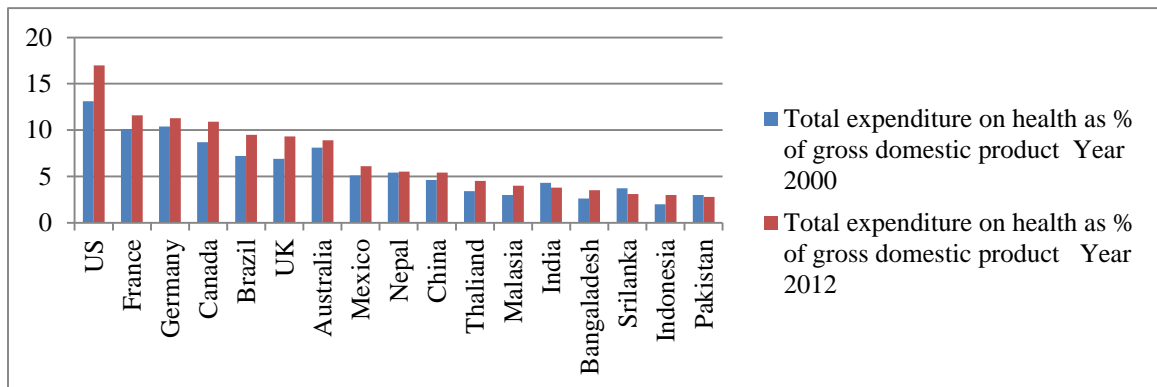
We have compiled some statistics and presented them graphically to depict the health spending in India and compared that with some other representative countries. Refer the charts below and the conclusions deduced from them are listed below the charts.



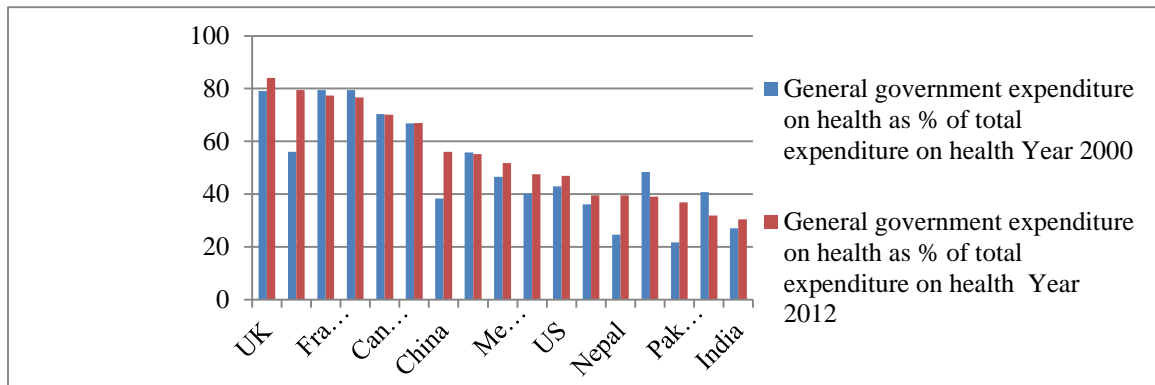
Source: (World Health Statistics 2015, 2015)



Source: (World Health Statistics 2015, 2015)



Source: (World Health Statistics 2015, 2015)



Source: (World Health Statistics 2015, 2015)

- India is in the lower order of rank with less than 5% of the total Expenditure on health as a% of GDP
- The general government expenditure on health as a percentage of total expenditure of health is very low in India at 30.5% of total health expenditure. Other developing countries in Asia like Pakistan, Nepal, Srilanka and Bangladesh surpass India in the same despite having low per capita income.
- The private spending on health in India as a percent of the total spending on health (69.5%) is more in India compared to the countries being compared with.
- Out of pocket expenditure in India as a percent of private expenditure on health (87.2%) is also among the maximum in India. Per Capita Total Health Expenditure
- Per capita total expenditure on health (\$196) and per capita government expenditure on health (\$60) – in both cases India fares among the lowest.

To summarize, except in Per capita government expenditure on health (PPP int. \$) there is a degradation of India's standing, in all the following areas, vis-à-vis other countries in consideration from the year 2000 to the year 2012:

- Total health expenditure as a percent of GDP is lowest at 4%.
- General government expenditure on health as % of total expenditure on health. Within total health spending, India has the lowest percentage of government (both central and state) health spending, at 31%.



- Private expenditure on health as % of total expenditure on health. This means there are countries which have improved in this from the year 2000 to 2012 by decreasing the private expenditure as compared to the total expenditure.
- General government expenditure on health as % of total government expenditure.
- Out-of-pocket expenditure as % of private expenditure on health.
- Per capita total expenditure on health (PPP int. \$).

Health expenditures are known to account for a significant proportion of a poor household's income. According to a High-Level Expert Group (HLEG), total health spending in India in 2011 was R.s. 2,500 per capita. Out of pocket spending(OOPS) accounts for 5.73% of household consumption (Selvaraj and Karan,2012).

This probably forces the less privileged to seek unregulated private healthcare with significant adverse impact on out-of-pocket (OOP) expenditure. This not only pushes the non-poor into poverty but also affect the final outcomes. It is worth to mention that the health outcomes (like, infant mortality rate) recorded better in most of the countries where public spending on health is high. This clearly indicates that the efforts in this direction have to be increased with a holistic approach in mind since the health situation in India has not progressed with the comparable pace if we consider the progress made by the other countries under consideration.

### **Review of Government Health Schemes and Budget**

Health, however, is an important component for economic development but India announced its first National Health Policy in 1983, three and a half decades after its independence. In this policy, India committed to achieving 'Health for All by the year but the prescribed numbers of physical and human infrastructure in the health sector has not been achieved.

The second National Health Policy of India announced in 2002 which committed to increasing the public spending in health from existing 0.9 per cent to 2 per cent of GDP and from 5.5 per cent to 8 per cent of the budget by 2010. The spending in 2010 recorded, about 1.09 percent of GDP and 6.85 percent of the total budget, less than the commitments.

Similarly, the National Rural Health Mission (NRHM) (2005) of India has committed to spending 2.3 percent of GDP by 2012, the end of the 11th Five Year Plan. The targets of National Rural Health Mission (NRHM) spending have not been achieved. The health spending was recorded around 1.2 per cent of GDP at the end of 11th Plan. After adding the expenditure on complementary (the water supply and sanitation) services it hovered around 1.6 percent of GDP, which is again less than the committed level of health spending. These experiences show the government's failure in serving and providing the adequate health services to the population. India, despite its low health outcomes, no major lesson has been learned from the past. The results show that even the Primary Health Care approach never been implemented effectively; the goals for 'Health for All by 2000' were not met and the spending commitments have not been fulfilled. This reflects that governments (both center and states) have given less priority to the health sector in India. In the proposal, the Universal Health Coverage, 2012 proposed to increase government (central and state combined) spending in health from the then level of 1.2 per cent of GDP to at least 2.5 percent by the end of the 12th Plan and to at least 3 percent of GDP by 2022.(Hooda, 2013) .

### **Health Budget in 12th five-year plan**

To keep the promise of an enhanced public health system for the country, as envisaged in the 12th five-year plan (2012-17), the government will have to increase the allocation for health in the coming budgets to a very high amount. The table below shows the Year-wise budget allocation on health (Planning Commission, 2012)\_Rema Nagarajan\_

**TABLE 3-7 : Budget Allocation for Health in the 12<sup>TH</sup> FIVE-YEAR PLAN**

<b>Year</b>	<b>Budget Allocation on Health (in ₹ Cr.)</b>
2012	34488
2013	37330
2014	35163
2015	33152
2016	22950

Source: Compiled from the individual years' budgets

The first year of the 12th plan, 2012-13, had only about ₹34488 Cr. allocated. This left more than Rupees 2.66 lakh Cr. to be allocated in the remaining four years starting with

this budget if the center is to keep its promise to allocate over ₹3 Lakhs Cr. in the 12th plan. For this, till 2017, the center must contribute over Rs 66,300 crore annually for public health, taking its contribution from a mere 0.35% of the GDP to about 0.5%. But as the table above shows that didn't happen.

In the 11th plan, the entire public spending on health by the Centre over five years was about Rs 90,000 lakh crore, just 64% of the promised allocation of 1.4 lakh Cr. allocations in the 11th plan.

By the end of 12th plan, total public funding for health is expected to increase from 1.04% of GDP, among the lowest in the world, to 1.87%. For this, the total public health spending will have to more than triple what was spent in the 11th plan period. This would involve an annual increase in central plan allocation during 12th Plan by 34%. The share of center and state in the total public health expenditure is expected to remain at the 2011-12 level of 33% and 67% respectively. The share of the states was approximately 0.68% of the GDP during the 11th plan period. However, the bulk of spending on health (68%) still came, not from the center or from the state governments, but from the pockets of the people seeking healthcare, or as private expenditure on health. India has among the highest private spending on health in the world. The bulk of central health spending, about 90% would go to the department of health and family welfare. The rest of the allocation goes to the department of health research, the Department of Ayurveda, Yoga, and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) and the department of AIDS control. The National Rural Health Mission which accounted for 74% of the health ministry's expenditure is expected to be expanded to become the National Health Mission which would also include urban areas.

**TABLE 3-8 : Health Budget (2016-17) Allocations Under Different Heads**

<b>Bucket</b>	<b>Percentage of total Health Budget, 2016-17(%)</b>
National Health Mission	80
Pradhan Mantri Swasthya Suraksha Yojana	10.3
Rashtriya Swasthya Suraksha Yojana	6.3
AYUSH	0.9
Research and Development	1.1

Source :(Ministry of Finance, 2015)

The enhanced allocation is meant for substantial expansion and strengthening of the public-sector healthcare system across the country so that people, especially the poor, would not be so dependent on the private sector for healthcare, where the cost is so high that it impoverishes millions seeking healthcare every year.

At present, India's health care system consists of a mix of public and private sector providers of health services. Networks of health care facilities at the primary, secondary and tertiary level, run mainly by State Governments, provide free or very low-cost medical services. There is also an extensive private health care sector, covering the entire spectrum from individual doctors and their clinics to general hospitals and super-specialty hospitals.

The system suffers from the following weaknesses:

- ❖ **Availability** of health care services from the public and private sectors taken together is quantitatively inadequate. This is starkly evident from the data on doctors or nurses per lakh of the population.

At the start of the Eleventh Plan, the number of doctors per lakh of the population was only 45, whereas, the desirable number is 85 per lakh population. Similarly, the number of Nurses and Auxiliary Nurse and Midwives (ANMs) available was only 75 per lakh population whereas the desirable number is 255. Rural areas are especially poorly served.

- ❖ **The quality** of healthcare services varies considerably in both the public and the private sector. Many practitioners in the private sector are actually not qualified doctors. Regulatory standards for public and private hospitals are not adequately defined and, in any case, are ineffectively enforced.
- ❖ **Affordability** of health care is a serious problem for the clear majority of the population, especially in tertiary care. The lack of extensive and adequately funded public health services pushes large numbers of people to incur heavy out of pocket expenditures on services purchased from the private sector. Out of pocket expenditures arise even in public sector hospitals since the lack of medicines means that patients have to buy them. This results in a very high financial burden on families in case of severe illness. A large fraction of the out of pocket expenditure

arises from outpatient care and purchase of medicines, which are mostly not covered even by the existing insurance schemes. In any case, the percentage of population covered by health insurance is small.

The problems outlined above are likely to worsen in future. Health care costs are expected to rise because, with rising life expectancy, a larger proportion of our population will become vulnerable to chronic Non-Communicable Diseases (NCDs), which typically require expensive treatment. The public awareness of treatment possibilities is also increasing and which, in turn, increases the demand for medical care. In the years ahead, India will have to cope with health problems reflecting the dual burden of disease, that is, dealing with the rising cost of managing NCDs and injuries while still battling communicable diseases that remain a major public health challenge, both in terms of mortality and disability (Figures 20.1 and 20.2).

The public expenditure on health needs to increase much more over the next decade.

As per the 12th five-year plan, Government should increase public expenditure on health from the current level of 1.2 percent of GDP to at least 2.5 percent by the end of the Twelfth Plan, and to at least 3 percent of GDP by 2022.

### **Rashtriya Swasthya Bima Yojana (RSBY)**

Rashtriya Swasthya Bima Yojana (RSBY) is a scheme to provide insurance which covers a family and is a direct method by which the government wishes to reduce the burden of medical consumption shocks amongst the poor. It was launched by the Government of India in 2007, to provide BPL families with access, choice and financial-risk protection for in-patient health care services. The average medical expenditure for hospitalized treatment in India over 365 days is ₹ 5,695 in rural areas, and ₹ 8,851 in urban areas (NSSO, 2006).

RSBY has two main objectives:

- 1) To provide financial protection against catastrophic health costs by reducing out.
- 2) To improve access to quality health care for below poverty line households of pocket expenditure for hospitalization and other vulnerable groups in the unorganized sector.

Rashtriya Swasthya Bima Yojana (RSBY) was launched in early 2008 and was initially designed to target only the Below Poverty Line (BPL) households, but has been expanded to cover other defined categories of unorganized workers, covering:

1. Building and other construction workers registered with the Welfare Boards
2. Licensed Railway Porters
3. Street Vendors
4. MNREGA workers who have worked for more than 15 days during the preceding financial year
5. Beedi Workers
6. Domestic Workers
7. Sanitation Workers
8. Mine Workers
9. Rickshaw pullers
10. Rag pickers
11. Auto/Taxi Driver

The premium cost for enrolled beneficiaries under the scheme is shared by Government of India and the State Governments. The program has the target to cover 70 million households by the end of the Twelfth Five-Year Plan (2012-17). The beneficiaries need to pay only ₹ 30/- as registration fee for a year while Central and State Government pays the premium as per their sharing ratio to the insurer selected by the State Government based on a competitive bidding. By paying only a maximum sum up to ₹ 750/- per family per year, the Government can provide access to quality health care to the below poverty line population.

The problems with the RSBY are as mentioned(Moving Toward Universal Health Coverage.)

1. Enrolment is done at the family level and covers up to 5 members: head, spouse, and 3 dependents. Only BPL households are eligible.

2. Inpatient care, restricted by package limits (700 procedures, 5 days post hospitalization drugs and transportation costs of ₹100) and subject to an annual ceiling of ₹ 30,000 per family, are covered on a cash-less basis.

The scheme has restrictions based on the category of population and the size of the family which surely hampers the objective of providing health to the weaker sections. The above restrictions and limitation calls for consideration of the universal coverage to the whole population and also with a more realistic amount instead of a fixed one. So, we are going to try and do this calculation to arrive at any conclusion.

### **Universal Health Insurance Scheme (UHS)**

The four-public sector general insurance companies offer Universal Health Insurance Scheme for improving the access of health care to poor families. The scheme provides for reimbursement of medical expenses up to ₹30,000 towards hospitalization floated amongst the entire family, death cover due to an accident @ ₹25,000 to the earning head of the family and compensation due to loss of earning of the earning member @ ₹50 per day up to maximum of 15 days. The Universal Health Insurance Scheme (UHS) has been redesigned targeting only the BPL families. The premium subsidy is ₹200 for an individual, ₹300 for a family of five and ₹400 for a family of seven. This scheme has not become very popular and the population coverage remains restricted for lack of incentive to the insurance providers to expand the scheme coverage and high costs.

These experiences show the government's failure in serving and providing the adequate health services to the population. India, despite its low health outcomes, no major lesson has been learnt from the past. The results show that even the Primary Health Care approach never been implemented effectively; the goals for 'Health for All by 2000' were not met and the spending commitments have not been fulfilled. This reflects that governments (both center and states) have given less priority to health sector in India. In the proposal, the Universal Health Coverage, 2012 proposed to increase government (central and state combined) spending in health from the then level of 1.2 per cent of GDP to at least 2.5 per cent by the end of the 12th Plan and to at least 3 per cent of GDP by 2022. (Hooda, 2013)

The health insurance in India gives a fragmented picture with number of different schemes for various occupations, questions regarding inefficient implantation of RSBY, very low penetration of health insurance in overall population. This leads to almost 70 % of the total spending from private sector 87 % of the private sector health expenditure from out of pocket expenditure.

On this background we moot that the issue of financial feasibility of providing health insurance for all must be considered in India. The following sections present the product design and fiscal feasibility of Government financing of universal health insurance in India.

### **3.2.3 Social Security schemes in Maternity Benefit**

India has been longing to achieve the status of an economic super power for years. That mandates an all-round development of the country – encompassing all the sectors of society irrespective of cast, creed, economic status and gender. While there have been many attempts to make development immune to the first three criterion, the last one i.e. gender-bias is still a problem in India. Women have been always being under suppression and neglected as a part of the Indian society. We have been talking of women empowerment in this era – but the objective is far from achieved.

Gender, apart from economic, social and political factors, plays a major role in determining food security and nutritional status in India. Women tend to eat last and the least in many families. It is often believed that boys/men require more nutrition because they are physically more active. But women's needs are greater, especially during adolescence, pregnancy and breastfeeding. Women were the only players won medals for India in recent Rio Olympics-2016! Contradicting the long-standing beliefs, even in physical activities women are leading.

Gender discrimination has always been a problem in India. The data shows that 60% of women in their child bearing years are adversely affected due to inadequate nutrition during their own childhood; 80% of pregnant women ail from iron deficiency (anemia). The birth weight of infants exhibits a pronounced relationship with the nutritional status of the mothers therefore a malnourished and anemic woman is more likely to deliver an underweight baby (National Family Health Survey (NFHS III) 2005-06)



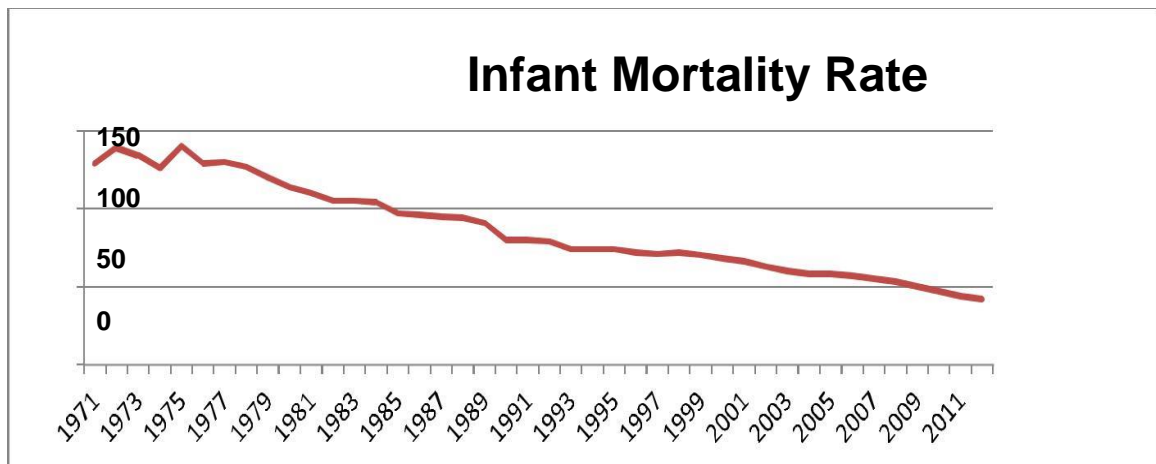
Women being the bearers and nurturers provide the foundation for generating future citizens for the country and actors for the economy. In addition, women also contribute as workers to the nation's gross national product, though in the labor market, women's reproductive role limits their full participation and acts as a basis of gender discrimination. Maternity Benefit is a tool that enables them to participate in the labor force even while pregnant and provides employment security and reimbursement for loss of wages while on maternity leave. Poverty and vulnerability provide additional arguments for state facility of social security including maternity protection and childcare in India. The Indian state is bound to the provision of Maternity Benefit by the Constitution and by being a signatory of the ILO Convention 1919. Maternal mortality is defined by National Family Health Survey-III (NFHS-III) as the death of a woman during pregnancy or delivery or within 42 days of the end of pregnancy from a pregnancy - related cause.(Ministry of Women and Child development, 2010)

According to Indian express May 7, 2014, newspaper report, India accounts for the maximum number of maternal deaths in the world - nearly 17% or nearly 50000 of the 2.89 Lacs pregnant mothers who died because of complications due to pregnancy or childbearing in 2013. India stands at 190th Rank worldwide in 2013, which though progressed from the 220th Rank in 2010 but still abysmal, as per the World Bank data.

According to the World Health Organization (WHO) report, India's Maternal Mortality Rate(MMR), which was 560 in 1990, reduced to 178 in 2010-2012. As per the Millennium Development Goal (MDG) mandate, however, India had to decrease its MMR further down to 103. Though India's MMR is reducing at an average of 4.5 per cent annually, it had to decrease the MMR at the annual rate of 5.5% to meet the MDG.(Mohapatra & Nanda, 2015)

Infant mortality declined marginally to 42 deaths per 1,000 live births in 2012 from 44 deaths in 2011 according to the latest data released by the Registrar General of India, Annual Health Survey. One in every 24 infants at the national level, one in every 22 infants in rural areas, and one in every 36 infants in urban areas still die inside one year of life, the report said. Next is the Infant Mortality Rate(IMR) of India for various years.

**FIGURE 3-1 : IMR (Infant Mortality Rate) Of India**



Source: <https://data.gov.in/>

The National Rural Health Mission (NRHM) aimed to reduce the Infant Mortality Rate (IMR) to 28/1000 live births, the Maternal Mortality Rate (MMR) to 100/ 100000 live births and the Total Fertility Rate (TFR) to 2.1 by 2012. With IMR at 40 and MMR at 167 in 2013, only TFR seems anywhere near the goal set with 24 of the 29 states and 9 UTs achieving replacement levels of fertility. This achievement however is an indication of the focused attention that fertility control has received across the country, often resulting in tragic human rights violations in mass sterilization camps, targeting the poor. With IMR and MMR still lagging behind, the success of family planning programmes is often at the cost of quality and access improvements in healthcare in general.(Annual Report To The People On Health, 2011)

The persistently high infant and maternal mortality rates make a strong case for the universalization of maternity protection. That is, maternity protection/support should be demand-driven and based on self-selection.

In Mexico, a national health insurance program called Seguro Popular, introduced in 2003, provides access to a package of comprehensive health services with financial protection for more than 50 million people previously excluded from insurance. Since its inception, there is evidence that Seguro Popular has improved access to health services and reduced the prevalence of catastrophic and impoverishing health expenditure, especially for the poor(Rai & Singh, 2012) .The reduction of maternal and child deaths, and coverage of

maternal and child healthcare services, have been improved. These efforts can be emulated by countries seeking to provide universal health coverage the individuals and populations. Learning from this experience will help to improve health conditions and financial protection and will also contribute to the global movement towards universal health coverage.

The High-Level Expert Group(HLEG) Report on Universal Health Coverage for India, instituted by the Planning Commission, Government of India, suggested that the ‘National Health Package’ cover essential health at primary, secondary, as well as tertiary level care for all citizens of India by 2022.It suggested a comprehensive “package” for maternal healthcare to control maternal deaths in India. NRHM since its launch in 2005, has provided the key strategy to India’s current public health system, has influenced the development of new guidelines to strengthening prenatal, natal and postnatal service delivery, and promoted the extended use of available health infrastructure, particularly human resources, at facility and non-facility levels.

### **Limitations of the employment linked maternity benefit scheme**

The data has shown that only around 38.4 per cent of rural and 19.6 per cent of urban women aged 15–49 is in the workforce. In the prime childbearing age interval (20–29 years), even smaller percentages (34.2% of rural and 17.8% of urban) women are workers.(Lingam & Kanchi, 2015). This suggests that the major share of women (61.6% of rural and 80.4% or urban) are left out of any employment-linked Maternity Benefit cover.

The only maternal support available to women out of the workforce, in the form of cash compensation through the Janani Suraksha Yojana (JSY) and similar schemes including support in kind through the Integrated Child Development Services Scheme (ICDS), is insignificant and available only to below poverty line (BPL) women. One of the most important limitations of the schemes - is the exclusion of the poorest due to lack of awareness and high transaction costs. Although it is true that in terms of vulnerability, rural scheduled tribe and scheduled caste women with no or low levels of education form the

primary group of women requiring maternity protection, especially because they are also among the poorest.

The level of women's work participation in rural areas and in agriculture is around (64.8%) and their preponderance in certain sectors (agriculture in rural and service sector in urban areas), occupations (low end jobs, domestic workers, migrant labor, vendors etc.,) and type of work (unpaid work or self-employment as opposed to paid work that is, regular/salaried or casual work) implies that the majority of women are in the unorganized sector and are informal workers – without any kind of social security.

Maternity Benefit cover is provided to a narrow segment of formal workers in the organized sector by the Employees State Insurance Act (ESIA) and the Maternity Benefit Act (MBA).

So, there is a need to have a universal maternity benefit for women irrespective of the social group they belong to, cast, creed and the employment status.

### **Constitutional Provisions**

Just to show that the maternity benefit in principle, has a backing from Indian constitution and hence the government is liable to facilitate the same:

- Article 47 requires that the State should, as its primary duty, raise the level of nutrition and the standard of living of its people and improve public health.
- Article 42 requires that the State should make provision for securing just and humane conditions of work and for maternity relief.
- Article 43 mentions that the State shall endeavor to secure to all workers agricultural, industrial, or otherwise, a living wage, such conditions of work that ensure a decent standard of life.

### **Maternity benefit and Women Workers: Existing Scenario**

In India early marriage and childbearing in the early age is common. According to the National Family Health Survey 2005-06 (NFHS-3), the median age at marriages for women is 17.2 years and the median age at first birth is 20 years. Going by the median age at

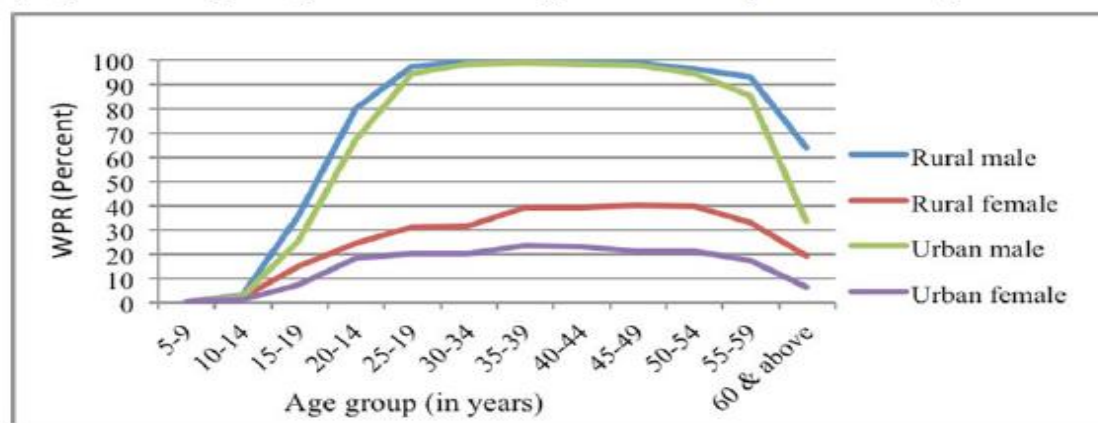
sterilization for women, 50 per cent of women complete their family size by age 25.5 years and 81 per cent by age 30, implying that prime childbearing age is 20-29 years.

In 2009-10, only 38.4 per cent of rural and 19.6 per cent of urban women in the reproductive age bracket (15 to 49 years) were in the workforce. And in the prime reproductive age (20-29) only 34.2 per cent of rural and 17.8 per cent of urban women were workers. Peak participation is achieved by rural women (49%) aged 35 to 49 and urban women (27%) aged 35-39 years (Fig 3.2).

Further, there has been a decline in the Workforce Participation Rate (WPR) of women in the reproductive cohort since 1993-94. The decline was sharpest (15.5 percentage points) for women 24 to 29 years in rural and 45 to 49 years (8.8 points) in urban India. (Lingam & Kanchi, 2015)

**FIGURE 3-2: Age-specific Work Participation Rate**

**Age-specific work participation rate according to Usual Principal Status during 2009-10**



Source: (Lingam & Kanchi, 2015)

So, the data on prime childbearing age and the peak work participation age (34 plus years) suggests that most of the women complete their family before joining the labour force. This is a clear indicator that the women are deprived of the essential maternity cover when they need it the most and the industry is deprived of a large section of workers especially when they are in their active stage of life.

In the forthcoming sections we will delve into the kinds of benefits women can have depending on the type of sector they are employed into.

## **Organized Sector and Maternity Benefit**

Female workers in the organized sector form small fraction—less than 4 per cent of the total female workforce. This Maternity Benefit Act in India enshrines that a woman shall be entitled to the maternity benefit for a maximum period of 12 weeks of which not more than six weeks shall precede the date of her expected delivery. If a woman could not avail of six weeks leave preceding the date of her delivery, this could be availed after delivery. This leave can be availed of as need arises, whether for rearing the children or looking after any of their needs like examination, sickness, etc. until the child reaches 18 years of age. A leave of 45 days is also granted in case of miscarriage (GoI 2008). While the recent propose Maternity Benefit amendment act 2016 (Maternity Benefit Amendment.), proposes the following:

- Increase Maternity Benefit from 12 weeks to 26 weeks for two surviving children and 12 weeks for more than two children.
- 12 weeks Maternity Benefit to a ‘Commissioning mother’ and ‘Adopting mother’.
- Facilitate ‘Work from home’. Mandatory provision of Creche in respect of establishment having 50 or more employees.

Private sector employees are covered under either Employee State Insurance (ESI) or the MB Acts. The ESI Act (1948) covers employees earning less than ₹15000 per month, of power using factories (other than seasonal factories) with over 10 and non-power using establishments with over 20 workers. The MB Act (1961) basically meant to cover all those not covered by the ESI, seeks to apply to factories, mines, plantations, including those belonging to the government; to circus and to shops and commercial establishment in which 10 or more persons are employed. The Acts are clearly designed to cover workers in the organized sector only despite the constitutional guarantee extended to all women workers.

## **Unorganized Sector/Informal Workers and Maternity Benefit**

Most workers (more than 95%), as the foregoing analysis has revealed, are informal workers with no maternity benefit cover under the ESI or MB Acts. All workers in the agricultural sector are informal workers. In addition, according to the NSSO -66th Round,

only 0.10 per cent of non-agricultural female workers aged 15–49 years have access to health care and maternity benefits (Table below). Those who are not eligible by this estimate account for 99.9 per cent of the non-agricultural workforce.

**Table 3-9 : Percentage of Female Non-Agricultural Workers 15-49 years of age, eligible for various levels of social security.**

<b>Availability of Social Security Benefits</b>	<b>Percentage (%) of female workers</b>
Only PF/pension (GPF, CPF, PPF, pension etc.)	0.3
Only gratuity	0
Only health care and maternity benefits	0.1
Only PF/pension and gratuity	0.1
Only PF/pension and health care and maternity benefits	0.1
Only gratuity and health care and maternity benefits	0.1
PF, pension, gratuity, health care and maternity benefits	0.8

Source: Computed from Unit level data of NSSO 66 round

Given the abject poverty of these workers and the poor state of the access to the medical care, such workers are likely to be deprived of the necessary care during pregnancy and lactation but may also be forced to get back to work earlier than advised without maternity support, with implications for the health and welfare of children and the household. Hence this group is in need of the public provision of the maternity protection.

Summarizing, the defining characteristics of women of the reproductive cohort – their low work participation, especially in prime childbearing age and almost complete dependence on informal employment together with alarming rates of infant and maternal death - argue for, first, a universal system of maternal support to all women, workers and non-workers alike, on the basis of self-selection; and second , the expansion and modification of present arrangements for Maternity Benefit to cover all workers. In the absence of such a scheme, the costs to the economy of a failure to provide maternity cover to all are bound to be high.

### **Existing schemes in India**

Below are the details of the existing maternity benefit schemes in India.

### **National Maternity Benefit Scheme (NMBS)**

This scheme was introduced in 2001 to provide nutrition support to pregnant BPL women through a onetime payment of ₹ 500/- eight to twelve weeks prior to delivery.

Under this Scheme, benefit was provided in the form of lump-sum cash assistance to pregnant women of households below the poverty line subject to the following conditions:

1. The benefit was restricted to pregnant women for up to the first two live births to women of 19 years of age and above.
2. The beneficiary belongs to a household below the poverty line as per the criteria prescribed by the Government of India.
3. The amount of benefit is ₹500. The maternity benefit was disbursed in one instalment 12–8 weeks prior to the delivery. In case of delay, it could be disbursed to the beneficiary even after the birth of the child.

One of the review study conducted by Planning Commission (1999), states that, NMBS was one of the landmark schemes in targeting women across country but the beneficiaries had observed that the amount was not adequate for them. Based on cross-survey the investigators of the Planning Commission had confirmed that:

- Assistance should be given in two parts, 50% in pre-natal period and 50% in post-natal period.
- Higher post-natal assistance should be given in case of female child.
- Amount should be given through cheque to avoid corruption.

According to the Government of India, Second Labour Commission's Report (Sharma, 2005), the number of women who received cash payments under NMBS in 2003–2004 was as low as 4.3 lakh—less than 2% of the total number of births in that year. In the year 2005, the Government of India launched the Janani Suraksha Yojana under the National Rural Health Mission to provide cash incentives for women to have an institutional delivery. The NMBS was merged into the JSY, in 2006, and with the intervention of the Supreme Court the benefits under the NMBS retained, irrespective of place of delivery.



### **Janani Suraksha Yojana (JSY)**

The Government of India in 2005 launched the National Rural Health Mission (NRHM) recognizing the need for marked improvements in provision of basic health care services to rural people in the country. It seeks to provide effective, equitable, and affordable quality health care services particularly focusing on the needs of women and children, the poorest and most vulnerable segments of society. The Janani Suraksha Yojana (JSY) is one of the schemes implemented as part of NRHM with a financial outlay of over ₹ 1,000 Cr. It is a Cash-Conditional Transfer (CCT) mechanism and is a demand-side safe motherhood intervention aimed at promoting institutional deliveries. Janani Suraksha Yojana (JSY) under the overall umbrella of National Rural Health Mission (NRHM) has been proposed by way of modifying the existing National Maternity Benefit Scheme (NMBS).

Its main objective was to increase institutional deliveries. Under the scheme, the government provides a cash incentive for pregnant mothers to have institutional births as well as pre- and ante-natal care. Under JSY, below poverty line pregnant women above 19 years of age are covered. So, the JSY primarily aims at promoting institutional delivery while NMBS component (payment of ₹ 500) within the Scheme is limited. According to the October 2006 JSY guidelines, all women in Low Performing States (LPS) receive cash assistance if they have their baby in a government health Centre or accredited private institution. In rural areas they receive ₹ 1400 and in urban areas ₹ 1000. The money is to be dispersed at the time of delivery in the institution. The cash assistance to the mother is mainly to meet the cost of delivery. They receive ₹ 500 cash assistance for their first two births if these deliveries are at home. The cash is to be given at birth or around 7 days before for “care during delivery or to meet incidental expenses of delivery.”

While NMBS is linked to provision of better diet for pregnant women from BPL families, JSY integrates the cash assistance with antenatal care during the pregnancy period, institutional care during delivery and immediate post-partum period in a health centre by establishing a system of coordinated care by field level health worker. The Janani Suraksha Yojana (JSY) is an incentive based programme for the promotion of institutional deliveries. The main objective of this programme is to ensure that each delivery is conducted in an institution and is attended to by a skilled birth attendant (SBA) to minimize/prevent

maternal deaths and pregnancy-related complications in women and at the same time ensure the well-being of the mother and the new-born. Incentives to mothers range from ₹ 700 (rural) and ₹ 600 (urban) in high performing states (HPS) to ₹ 1400 (rural) and ₹ 1000 (urban) in low performing states (LPS). JSY was introduced in urban areas since April 2006 for women Below Poverty Line (BPL). From October 2006 JSY benefits have been extended to SC/ST pregnant women irrespective of BPL card.

**TABLE 3-10 : Benefits under JSY**

Category	Rural Area		Total ₹	Urban Area		Total ₹
	Mother's package, ₹	ASHA's package, ₹		Mother's package, ₹	ASHA's package, ₹	
LPS	1400	600	2000	1000	200	1200
NE states (except Assam) & rural areas of tribal districts of other states	700	600	1300	600	200	800

Source:(UNFPA India, 2009)

### **Indira Gandhi Matritva Sahyog Yojana (IGMSY)**

The Scheme “Indira Gandhi Matritva Sahyog Yojana (IGMSY)” – Conditional Maternity Benefit (CMB) Scheme is a maternity benefit program run by the government of India. It was introduced in 2010 and is implemented by the Ministry of Women and Child Development. It is a conditional cash transfer scheme for pregnant and lactating women of 19 years of age or above for first two live births. It provides a partial wage compensation to women for wage-loss during childbirth and childcare and to provide conditions for safe delivery and good nutrition and feeding practices.

The focal point of implementation was the Anganwadi Centre (AWC) at the village. Under the scheme, cash benefit of ₹4000/- was provided to every pregnant and lactating woman covered under the IGMSY. Apart from this, cash incentives to the Anganwadi Workers (₹ 200/-) and Anganwadi Helpers (₹ 100/-) would be provided which would together be ₹ 300/- per beneficiary, i.e., pregnant and lactating women covered under the scheme. In 2013, the scheme was brought under the National Food Security Act, 2013 to implement the provision of cash maternity benefit of ₹6,000 stated in the Act. Presently, the scheme

is implemented on a pilot basis in 53 selected districts and proposals are under consideration to scale it up to 200 additional 'high burden districts' in 2015-16.

### **Critical evaluation of JSY and Others**

JSY is a Conditional Cash Transfer (CCT) mechanism for a safe motherhood aimed at promoting institutional deliveries. The per-capita expenditure on women also varies across the states.

One of biggest of such programs in the world, the JSY has stimulated extraordinary attention and curiosity by public health stakeholders worldwide because of its scale, coverage, and budget. In just 4 years, its beneficiaries multiplied from 0.74 million in 2005–06 to 10.9 million in 2011-12 (GoI2013). The number of institutional deliveries increased from 10.8 million in 2005-06 to 17.5 million in 2011-12. In addition, Janani Shishu Suraksha Karyakram (JSSK), a new initiative which entitles all pregnant women delivering in public health institutions to an absolutely no expenses delivery covering free delivery including Caesarean, free drugs, diagnostics, blood and diet, and free transport from home to institution including in a referral institution, is operation.

Budgetary allocation for the JSY increased from a mere US\$8.5 million to \$275 million between 2005 and 2009.

But the nationally demonstrative District Level Household and Facility Survey 2007–2008 (DLHS-3) revealed that in India, almost 50% of women aged between 15–49 years had at least three prenatal care visits; the lowest performance being 22% in Uttar Pradesh. Only 47% of women said that they underwent institutional delivery, and only 13% of eligible women had received JSY assistance.

The poor quality of maternal-neonatal care facilities despite substantial inputs under the National Rural Health Mission is a cause for concern.

Most public-sector facilities continue to be understaffed, and do not meet the desired functional

Standards (DLHS-3, IIPS, 2009). Deliveries are often carried out by unskilled support staff rather than by skilled nurses or doctors. The system of referral to a higher level for

emergencies is inadequate (Mohapatra, et al., 2008). Most mothers and babies are discharged within hours after delivery because the hospitals lack amenities, and families want to return home having got the cash incentive (MoHFW, 2008) although at least 48-hour care is recommended under JSY. As a result, there is inadequate time for newborn-care counseling, stabilization of the post-partum mother, and detection of danger signs in the mother and the infant. There is an urgent need to ensure continuing postnatal care to neonates and mothers at home, where they spend the rest of the at-risk postnatal period. It has been recommended that the incentive to the ASHA for this function be increased.

There are other problems in the scheme too. Payments to families and the health workers are delayed in places, and there are instances of corruption. Another serious issue is the overshadowing effect of the JSY on other initiatives for maternal, newborn, and child health. The results for JSY uptake indicate the central part that state authorities play in the implementation of national health programmes in India.

The study (Stephen, et al., 2010) finds that the poorest and the least educated women do not consistently have the highest odds of being JSY recipients indicates that an improvement of the targeting of this program is required. There are several possible explanations for why JSY uptake was not the highest in the poorest and least educated women.

First, a common challenge seen in other large national social programmes that have expanded in a short period is to reach the most disadvantaged population.

Second, physical access might be a substantial barrier for women in the lowest socio-economic status groups since JSY payments can only be made in accredited health facilities. Noteworthy is that Madhya Pradesh, which has made special efforts to accredit remote health facilities; also has one of the highest levels of participation in JSY.

Third, cultural barriers against in-facility births are also prevalent among women of low socioeconomic status in India, and these barriers must be addressed. Lower uptake by Muslims

and Christians than by women of other faiths that might suggest poor reach of ASHAs in these communities or poor access of these minorities to accredited health facilities.

Finally, the previous national maternity benefit scheme included a payment of 500 rupees (\$11) to poor women for deliveries at home. In LPS, all births delivered in government health center are eligible; in HPS assistance is available only up to two live births.

The experiment of introducing enticements for physicians to perform delivery to reduce maternal mortality was believed fruitless. For instance, a public-private partnership scheme called 'Chiranjeevi Yojana' or "plan for a long life" was launched by the Government of Gujarat (western India) to bridge the gap in the availability of quality maternal health-care services for Below-the-poverty-line families in rural areas by collaborating with private practitioners in small towns. The state government paid private gynecologists Rs 1795 per delivery – as well as Rs 200 to the patient for transportation costs to the place of delivery and Rs 50 to the person accompanying the patient to compensate for loss of wages. But, differing from expectation, there was no considerable progress in the overall reduction of MMR in Gujarat in 2004–2006 (160/100 000 live births) or 2007–2009 (148/100 000 live births). In contrast, the reduction was more substantial in Uttarakhand/Uttar Pradesh, and even in Bihar/Jharkhand, which are considered as underdeveloped states. The argument for this is that the promotion of institutional delivery through JSY is not the only way to reduce maternal deaths;

The latest central maternity support program, namely the Indira Gandhi Matritva Sahayog Yojana shackled by conditionalities which result in the exclusion of a considerable segment of women (Lingam and Yelamanchili 2011). It also deliberately excludes those covered by the ESIC. So, there is a need to make this scheme universal.

Additionally, there is thus a great deal of confusion and lack of uniformity as to the sections of workers to which the current maternity benefit legislations apply. Coverage is partial, fragmented and patchy.

### **3.2.4 Social Security schemes in Old Age Pension Benefit**

In his election speech in 1935, Franklin Delano Roosevelt said, “it is the more obligations to honor the right of citizen to live with dignity even in the retired life”.

“By providing financial protection against the major 18th and 19th century risk of dying too soon, life insurance became the biggest financial industry of the century. Providing financial protection against the new risk of not dying soon enough may well become the next century’s major and most profitable financial industry,” said Peter Drucker the modern age management and economics guru. He not only highlighted the importance and need of an old age security system but also envisaged it to be a profitable venture of future.

India and the world at large are currently grappling with the problems of supporting old age people. This problem is of typical in nature by itself. Society has advanced rather still striving to increase the life of mankind. That’s a welcome move but that causes an increase in aged population who can’t afford themselves on their own. They need a support system at physical, psychological and economical level. Another set of problem is more applicable for India – which already suffers from a population explosion which brings in, apart from other problems, the problem of unemployment which in turn is the root cause of many other problems like the crime rate. To address the unemployment issue Indian government has fixed the age of retirement as sixty. This is to make way for the young in different jobs. But that needs the retired person, if he doesn’t retire with a fortune, to be supported for the rest of life, dependent – a tag itself lowers the self-esteem.

There was little in the way of public welfare system, to support or assist people in difficulties. As mentioned in chapter 1, social security began to develop in the latter part of the 19<sup>th</sup> century, initiated by Bismarck’s social insurance plan in Germany. In 20<sup>th</sup> century social security schemes developed rapidly in different countries giving emphasis on public provision on protection against different contingencies - sickness, industrial injury, widowhood, retirement.

The paper named “The Future of Social Security “(Schalow,1968) projects that the retirement costs of the baby-boom generation in the twenty-first century may be too great a burden for future workers to bear. The paper highlights that there are cases in various

countries where the old age dependency ratio has increased and has been a cause of concern since the schemes are mainly based on the contributions from the working i.e. young population and not fully government funded. The next section touch base with the demographic scenario in India mainly from the point of view of assessing the old age support needed.

This chapter deals with the third pillar of social security that is old age pension support. It takes into account the study of the existing system in other countries which we have studied and presented in section 2.3 of chapter 2. We have presented the analysis and study of demographic scenario of India. After the study of existing scheme in India primarily Atal Pension Yojana and understanding the issues related to performance, coverage and participation deficiency we tried to come up with a solution addressing them from point of view of financial feasibility, sustainability, universal coverage.

### **Indian Demographic Scenario**

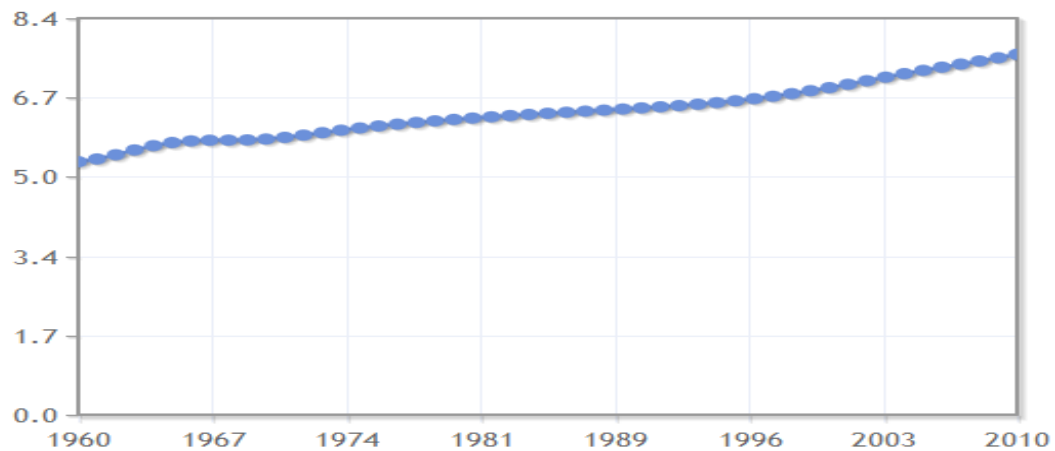
India has a distinct advantage over most of the countries in the world as Prime Minister also mentioned in one of his speeches – the three Ds, namely democracy’, ‘demand’ and ‘demographic dividend’. We’ll not delve into democracy here. Demand indirectly refers to the population – already containing 17.5% of the world's population, India is projected to be the world's most populous country by 2025, surpassing China, its population reaching 1.6 billion by 2050.

Apart from being a populous country – it a growing economy, a developing country and that makes it a place of high demand of commodities and other needed things of life and life-style and out of these two the lifestyle is having more demand. This directly means the population spends and hence an increase in demand which in turn means a promising market for companies for their products. But for policy makers of India this means one more fact – that the need of the people is increasing which in turn means the increasing need of money at every stage of life. The number of dependents is a cause of concern for societies like India since the old people are dependent on young.

The (total) dependency ratio can be decomposed into the child dependency ratio and old-age dependency ratio. Old age dependency ratio is defined as the number of persons older

than 64 per 100 persons to the people in the age-group 15-64 years. Child dependency ratio is the ratio of younger dependents--people younger than 15-to the working-age population--those ages 15-64. The Old age dependency ratio in India was last reported at 7.71 in 2011, according to a World Bank report published in 2012.

**FIGURE 3-3:Old age dependency ratio of India**



Source : (World Data Bank - Old Age Dependency Ratio of India)

Today more than fifty percent of aged persons in India are surviving below the poverty line and more than 80 percent of the elderly are depending on others especially children for their day today activities. The increasing dependency ratio brings more economic pressure on working population. As the ratio increases there may be an increased burden on the productive part of the population to maintain the means of livelihood of economically dependent.

Over time, the huge bulge in the working force – which is being considered as an economic windfall -- is expected to retire. A larger number of older and retired people, in the absence of a dependable pension system, will pose a danger to the old age income security in the country and need a dedicated effort from the government to route expenditure towards providing for health and pension spending. This causes a drain on the state of the fiscal and, subsequently, on the economy.

The situation could become like that of China where the working population is shrinking (Macauley, 2016) and as one of the measures, China announced that it would end its



decades-old “one-child” policy, a tacit acknowledgement that the country’s aging population threatens its economic rise.

In India, the proportion of those aged 60 and above is expected to climb from 4.6% in 2000 to 9% in 2030. In absolute numbers, the number of people above the age of 60 will increase from 87.5 million in 2005 to 100.8 million in 2010 and this is expected to jump to 200 million by 2030. By 2050, it is expected to be over 320 million (World Population Ageing: 1950-2050, United Nations). What causes the problem is the fact that improved economic development is bound to lead to a higher life span. The inability to implement a properly functioning pension system now is likely to affect a larger number of people in the future.

What further complicates matters is that only about 12% of the working population participates – and is eligible to participate -- in the mandatory, formal programmes designed for providing income security during the non-earning years. These employees are largely part of the formal sector (private sector and the government). The rest is either part of the informal sector (which goes unreported in the broader economic scheme) or does not enjoy adequate income streams that can be accommodated in the existing pension schemes.

Having a greater proportion of people in the working age group can mean faster per capita economic growth, but only if their full potential is realized. A look at the state of employment in the country shows that India is still far from deriving any real advantage from its demographic dividend.

Data on employment in India is provided by three different agencies - the National Sample Survey Organization (NSSO), the Labour Bureau and the decadal Census.

The census, which counts those not working (even part time) but “seeking or available for work”, shows up a far higher level of unemployment than both the NSSO and the Labour Bureau sample surveys of contiguous years

In 2011, over 56 million people aged 15 and above who were not working were either seeking or available for work, putting the unemployment rate at 10.7 percent. This, however, did not capture the full force of job seekers. Just short of a quarter of the work

force was comprised of “marginal workers” – workers who were able to find work for less than 6 months. Nearly half of the marginal workers were also “seeking or available for work” taking the count of job seekers to nearly 21 percent of the labour force. So, the policy of having only the working population involved in contributing towards future pension may not work.

So, considering the points mentioned above we need an inclusive old age pension system in place in our country which takes care of the ageing population which is not in the earning stage of their life and till the time the unemployment problems is fully addressed, the old age pension schemes need to be supported by the government, to an extent.

### **Categories of Pension Schemes**

Any pension system in the world can be said to broadly conform to any one, or a combination of the categories mentioned below(C.D.Daykin, 1996)

First type can essentially comprise all the state-funded pension plans, which in theory should ideally cater to every citizen in the country. This is also the category under which the government launches some of its poverty alleviation programmes aimed specifically at the aged. The system is publicly managed, the liabilities are not actuarially funded, and the scheme works on what is termed as Pay-As-You-Go. This means that current revenues are used to meet current expenditures. But, in fiscal terms, the consequences need a slightly more detailed look – the current generation’s tax payments are used to pay the pension liabilities of an earlier generation. The World Bank’s famous report on pensions, called *Averting the Old Age Crisis* (1994), defines this one thus: “*a publicly managed system with mandatory participation and the limited goal of reducing poverty among the old*”. In India, the defined benefit pension system in vogue for the civil services at both the Centre and the state level – including in the railways, defense and telecommunication services – fall under this category, where the system is essentially non-contributory in nature and any year’s pension liabilities are met from the government’s annual revenue expenditure account for that year.

Second one typically comprises a mandatory savings programmes at the employment level which is either privately or publicly managed. In simple terms, it is a forced savings

category that provides benefits only to contributors, and in general, incorporates a direct linkage between the volume of contribution and the extent of benefits received. In India, the Employees Provident Fund, which is India's largest defined contribution and publicly managed plan, is an example of this. In addition, there is the Employees' Pension Scheme, a publicly managed scheme carved out of the EPF scheme with the objective of paying a monthly pension to workers after their retirement.

The third type includes all kinds of voluntary savings, available to everyone including those looking to supplement their type 1 and 2 pension provisions. In India, the Public Provident Fund scheme fits the definition.(D. Swarup.2008)

### **The Need to Focus on Pension Benefit**

Below are the reasons mandating the need to overhaul or design a comprehensive pension benefit for the old age population.

- **Population aging**

As mentioned above in India, the proportion of those aged 60 and above is expected to climb from 4.6% in 2000 to 9% in 2030 including the absolute number 200 million by 2030. (World Population Ageing: 1950-2050, United Nations).

- **Skewed coverage - focus on the organized sector**

Existing pension schemes in India predominantly cover mainly the organized sector workers, constituting about 10 percent of the aggregate workforce. While the number of workers in the unorganized sector, covered under the schemes are merely 2 million - less than 10 percent of the covered organized sector workers and just 1 percent of the total unorganized sector working population.

- **Disparities in the pension benefits**

Fragmentation of the current pension system has occurred due to the disparate benefit levels within the organized sector where public sector employees are treated rather generously vis-à-vis the private organized workers. A striking characteristic of the current system is the varying range and level of benefits within the organized sector.

- **Problems with provident funds**

In a provident fund system, the income replacement, investment and inflation risks are borne by the plan participants. It does not provide protection against the whole length of the contingency. The inability to ensure that lump sum payments are used to provide old age protection is a serious draw back of the current system. Majority of the workers being low wage earners have little additional savings and much of the lump sum amount is spent in meeting essential needs after retirement. Second, the provision of liberal non-refundable withdrawal facility from provident funds to meet various contingencies during the employment period significantly reduces the quantum of benefit at retirement. To address this issue to an extent the current finance minister in the budget of 2016-2017 proposed some of the measures to encourage that including the restrictions on early withdrawal, taxing the maturity lump-sum amount if it's not invested in a pension fund. The proposals have been backed out later in the wake of public resistance.

- **Rising financial burden of public pension schemes**

The rising number of retirees and the increasing generosity of the public pension programs are rapidly jeopardizing their long-term financial sustainability. Pension schemes of the central as well as various state governments are facing acute financial crisis due to lavish benefit provisions.

- **Government control**

The current pension system is heavily regulated by government agencies. State control and interference in administration and supervision has only hindered the growth of the pension system. There has been widespread recognition that the current regulations are impeding the growth of the pension system. Many claim that greater autonomy for the provident and pension funds, supported by an environment of prudential regulations, is essential.(Goswami.)

- **Initiatives from the past**

Recently in the Budget of 2016-2017 the finance minister expressed the desire of the government to make India a 'Pensioned Society' but the initiatives in this area have been started long back.

Notwithstanding the limited size and scope, India has a long tradition of pension and other forms of formal old age income support system. The history of the Indian pension system dates to the colonial period of British-India. The Royal Commission on Civil Establishments, in 1881, first awarded pension benefits to the government employees. The Government of India Acts of 1919 and 1935 made further provisions. These schemes were later consolidated and expanded to provide retirement benefits to the entire public sector working population. Post-independence, several provident funds were set up to extend coverage among the private sector workers.

But recently the government began to take note of the looming pension crises necessitated by an existing anachronism in the civil service pension scheme – a defined benefit scheme inherited from the British administration, which was showing all signs of being fiscally unsustainable and, secondly, by an important event in the mid-nineties in which a part of the age-old defined contribution scheme, the Employees Provident Fund Scheme, was converted into a defined benefit scheme in the form of the Employees' Pension Scheme, 1995. This marked a curious move by the Indian government, particularly at a time when the rest of the world was moving away from Defined Benefit (DB) to Defined Contribution (DC). However, the introduction of NPS a few years later might be seen as an attempt to make course corrections.

The Ministry of Social Justice and Empowerment (earlier called the Ministry of Welfare), in 1998, commissioned the first comprehensive study of India's pension sector under the chairmanship of former UTI Chairman Dr. S A Dave, under the name of Oasis (Old Age Social and Income Security) Project. As part of its overall recommendations, the Oasis committee (which submitted its final report in January 2000) suggested a completely new and completely different architecture through portable individual retirement accounts, across-the-counter service delivery platforms, centralized record keeping, competing

pension fund managers, extensive use of information technology, freedom to choose investment menus, among other things.

The turning point came on February 28, 2001, when former Finance Minister, Mr. Yashwant Sinha, announced this in his Budget speech for 2001-2002 that the Central Government pension liability has reached unsustainable proportions: as a percentage of GDP, it has risen from about 0.5 per cent in 1993-94 to 1 per cent in 2000-2001. As such it is envisaged that those who enter central government services after October 1, 2001 would receive pension through a new pension program based on defined contributions. A High-level expert group was formed to review the existing pension system and to provide a roadmap for the next steps to be taken by the Government and to give its recommendations.

The next Finance Minister Jaswant Singh took this forward in his Budget speech of February 2003 and announced the restructured pension scheme for new Central Government employees, a scheme for the public. The scheme was declared to be applicable to Government service, except to the armed forces, and upon finalization, offer a basket of pension choices. The scheme was made available, on a voluntary basis, to all employers for their employees, as well as to the self-employed. This new pension system was based on defined contribution, shared equally in the case of Government employees between the Government and the employees. There would, of course, be no contribution from the Government in respect of individuals who are not Government employees.

The new pension scheme would be portable, allowing transfer of the benefits in case of change of employment, and will go into 'individual pension accounts' with Pension Funds. The Ministry of Finance will oversee and supervise the Pension Funds through a new and independent Pension Fund Regulatory and Development Authority. Thus, began the transition from the age-old defined benefit scheme to the fiscally prudent defined contribution scheme as part of the National Pension System. In December 2003, the Interim Pension Fund Regulatory and Development Authority were created as the watchdog and promoter for the pension sector. Simultaneously, all government employees joining service on or after January 1, 2004, was compulsorily brought under the coverage of the New Pension System (NPS).

## **Existing Schemes in India**

This section lists the two main existing schemes available for the common person in India. These schemes are open to everyone irrespective.

### **National Pension Scheme**

National Pension Scheme NPS is a defined contribution (DC) scheme replacing the defined benefit scheme(DB) available to the Government employees until then. Most of the states have also migrated to the DC system under NPS, except three states. Only one category of government employees has been exempted from mandatorily moving to NPS: personnel from Armed Services. NPS was introduced for all citizens from May 2009.

Each government employee contributes 10% of his salary (basic+ DA+DP) to the pension account, which is then matched by a government contribution of an equal amount. However, non-government employees do not get the benefit of a matching government contribution. In both the cases, investors are free to contribute higher than what has been mandated. All these contributions are accrued in a pension account called Tier-I from which funds cannot be withdrawn. Once the account-holder reaches the proper exit age (60 years, relaxed to 50 years for Swavalamban beneficiaries in Budget 2011-12,), he/she can withdraw only up to 60% from the accrued savings corpus. The balance 40% in the savings corpus must be used to compulsorily purchase annuities sold by any life insurance company. This annuity then provides for regular pension streams over the non-working life of the investor. In addition, there is a tax issue at work here as well. The contributions to this account and the savings accrued are exempt from income tax, as per Section 80CCD. However, when the investor withdraws the amount on maturity, it is taxable.

To encourage the people from the unorganized sector to voluntarily save for their retirement and to lower the cost of operations of the New Pension Scheme (NPS) for such subscribers, the Government decided to contribute ₹ 1000 per year to each NPS account opened in the year 2010-11. This initiative, “Swavalamban” (which is now part of Jan-Dhan Yojana) is available for persons who join NPS, with a minimum contribution of ₹ 1000 and a maximum contribution of ₹ 12000 per annum during a financial year.

This scheme is open to those citizens of India who are not part of any pension/provident scheme. The per capital Incentive payable to Aggregators has been revised from ₹ 50 to ₹ 100/-.

"NPS -Swavalamban Model" is designed to ensure ultra-low administrative and transactional costs, to make small investments viable. Government is to contribute ₹ 1000 per year to each NPS – Swavalamban account opened in year 2010-2011,2011-2012 ,2012-2013 for five years as under.

- Account opened in 2010-2011 will get the benefit till 2014-2015
- Account opened in 2011-2012 will get the benefit till 2015-2016
- Account opened in 2012-2013 will get the benefit till 2016-2017

NPS – Swavalamban account opened in the period 2013-2014 to 2016-2017 will get the Swavalamban benefit up to 2016-17.

#### Distinguishing Features of NPS -Swavalamban

- Voluntary - Open to eligible citizens of India, in the age group of 18–60 years. Subscriber is free to choose the amount he/she wants to invest every year.
- Simple – Eligible individuals in the unorganized sector can open an account through their Aggregator and get an Individual subscriber (NPS - Swavalamban) Account.
- Safe - Regulated by PFRDA, with transparent investment norms, regular monitoring and performance review of fund managers by NPS Trust.
- Economical – Ultra-low-cost structure with no minimum amount required per annum or per contribution.

Till year 2016 around 10 million people have been registered with NPS. However, when weighed against the fact that it has been more than twelve years since NPS was first made mandatory for government employees, the enrolments do seem to be on the lower side. In May 2009, NPS was thrown open to the public. The subscription levels so far remained rather tepid and did not seem to reflect any investor interest in the product, given that the scheme architecture was designed to



make it attractive to the public. In terms of money managed by the PFMs, as of Aug 31, 2016, the total assets under management by all PFMs amounted to Rs 1.44 Lacs Cr. Of this, the contribution from the nongovernment sector does not exceed Rs 13449 Cr. This reflects the sluggish growth of NPS.

**TABLE 3-11 : Number of Subscribers Registered under NPS (As on 31st August 2016)**

<b>FY 2016-17 up to 31/Aug/2016 (cumulative)</b>	<b>No. of Subscribers</b>	<b>Total Contribution M&amp;B (₹ Cr)*</b>	<b>AUM (₹ Cr)</b>
Central Government	1,723,203	40,477.18	56,760.58
State Government	3,110,200	56,306.77	71,329.08
Corporate Sector	514,411	9,841.19	11,752.91
Unorganized Sector	254,677	1,586.73	1,763.87
NPS Swavalamban	4,459,049	2,022.71	2,508.71
<b>Total</b>	<b>10,061,540</b>	<b>110,234.58</b>	<b>144,115.15</b>

Source:(Assets Under Management and Number of Subscribers - NPS, 2016)

#### Weaknesses of NPS

As reflected above the subscription levels have been pretty low for NPS. They could be attributed to the below factors:

- The scheme is available to the working population only.
- Non-government employees do not get the benefit of a matching government contribution.
- On maturity withdrawal is allowed up to 60% from the accrued savings corpus but that will reduce the fund available to pay the pension and hence reduce the pension amount to the unreasonable levels which anyway is not inflation immune.
- Financial literacy required to be in the NPS that is also inadequate.
- The NPS does not even guarantee a minimum pension, thus defeating its objective of a certain old age support.

Owing to these reasons NPS has been unsuccessful to reach those people who do not have the capacity to save for future long term consumption and has not served the best interest of workers and has seen a lukewarm response so far, with a majority

of subscribers being central and state government employees, for whom the scheme is mandatory (Sanyal, 2013). Thus, there is a necessity for a different pension scheme in India which not only ensures a minimum pension and tries to cover majority of the working force but also is feasible from the point of fiscal cost of the country.

### **Atal Pension Yojana**

In his Budget Speech for 2015-16, the Finance Minister has, announced a new initiative called Atal Pension Yojana (APY). The APY will be focused on all citizens in the unorganized sector, who join the National Pension System (NPS) administered by the Pension Fund Regulatory and Development Authority (PFRDA) and who are not members of any statutory social security scheme. Under the APY, the subscribers would receive the fixed pension of ₹ 1000/2000/3000/4000/5000 per month, at the age of 60 years, depending on their contributions, which itself would vary on the age of joining the APY. The minimum age of joining APY is 18 years and maximum age is 40 years. Therefore, minimum period of contribution by the subscriber under APY would be 20 years or more. The benefit of fixed pension would be guaranteed by the Government. The Central Government would also co-contribute 50% of the subscriber's contribution or ₹1000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years, i.e., from 2015-16 to 2019-20, who join the NPS before 31st December 2015 and who are not income tax payers. The existing subscribers of Swavalamban Scheme would be automatically migrated to APY unless they opt out.

Table of contribution levels, fixed monthly pension of ₹ 1,000 per month to subscribers and his spouse and return of corpus to nominees of subscribers and the contribution period under Atal Pension Yojana has been presented in section#3 in the Appendix.

This has been a revolutionary scheme compared against the ones India has had in the past that has clearly laid the plan with a crystal-clear contribution and the pension amount against the specific age. The amount of pension is guaranteed by the government hence it alleviates any uncertainty and doubts from the mind of beneficiaries.

Moreover, in this scheme the government has got the best of both the worlds ‘Defined Contribution’(DC) and ‘Defined Benefit’(DB). The main benefit of DC is that the contribution is fixed and hence the commitment from the beneficiary and encourages him/her to save something for his future. The benefit of DB is it guarantees the benefit and hence relieves the subscriber of any uncertainties of the benefit he/she expects.

The APY has a prominent gap associated with it with respect to universalization. The people above forty years of age have been excluded from the scheme. This age group in fact is more vulnerable and hence need the support, the most.

The main purpose of pensions is smoothening of consumption and mitigating longevity risks, poverty and inter-intra generation inequality. Universal pension scheme is found to do this successfully for each and every person of this country. An introduction of such a scheme will therefore enhance the welfare of the working cohorts of India majority of whose future lies in uncertainty.

As mentioned in the previous sections, there have been plenty of schemes initiated by the government of India as well as state governments but as can be seen, couple of those have been dedicated to the specific occupational groups or social groups and hence are not universal in nature and probably the cause of insufficient coverage of the social protection. The report (“ILO social security and other labour standards,”) Report on social security status at an International level) .Some areas are identified as well as evaluated in relation to financing of the schemes for example

- Is social security marred by ageing?
- Is social security faces threat from globalization?
- Has social security reached the limits of its affordability?

Social protection programmes must be available to all individuals without discrimination of any kind. Universal social protection systems – those which provide benefits to all residents without conditions – are the best way for States to meet their human rights obligations to ensure that there is no discrimination in the selection of beneficiaries(ILO social security and other labour standards)

The study suggests the universalization of the schemes instead of each one concentrating on one individual or separate sector of the population. Secondly the state should play a major role in financing the schemes instead of making them contributory.

## **Chapter 4**

### **Proposed Product Design for Comprehensive Social Security**

This chapter explains the comprehensive social security scheme. The discussion in the earlier chapter's reveals that the social security schemes in India are facing various issues. The targeted beneficiaries approach is not being very effective. Mainly because the success of the schemes is measured in terms of the number of beneficiaries targeted. However, the use of benefits, the profile of the beneficiaries, the actual benefit amount claimed and its composition among various economic and strata and regions are crucial factors deciding the quality of these schemes. The main argument behind the universal comprehensive social security program is that there are no inefficiencies arising due to selection bias, moral hazard, leakages and gaps.

The design of this universal comprehensive social security product is elaborated in the following sections. As mentioned earlier the social security as defined for this study is four pillars viz. Life Insurance, Health Insurance, Maternity Benefit and Pensions (based on ILO and the chapter explains each of the components of the proposed social security with respect to: Assumptions, Calculations of costs/premiums, age group of beneficiaries, data and methodology used for calculation of total cost to the exchequer. The fiscal implications of this product are discussed in the next chapter number 5.

#### **4.1 Life Insurance**

##### **4.1.1 Objective of new scheme**

A single non-ambiguous universal life insurance scheme that is applicable for the whole population.

##### **4.1.2 Data used for calculation of costs**

- Population sourced from Census of India-2011.
- Age wise mortality rate sourced from Sample Registration Survey 2011.

- Present value calculated based on assumption of 6% rate of Interest.  $v=1/(1+0.06) = 1/1.06=0.94$

### 4.1.3 Assumptions

- The proposed schemes are applicable only for the population of eighteen years to fifty-nine.
- For calculation, population distribution data is taken from Census 2011.
- The proposal is based on mortality tables which directly affects the calculations. In this calculation Mortality tables (2006-07) has been used which can vary based on actuals.
- The specific present value tables of 6% rate of Interest have been used from actuarial tables for calculating the fund value for the insurance proposal schemes. The Reserve Bank of India keeps its benchmark interest rate average at 6 percent.
- With respect to budget requirement to implement the proposals in our study, we have excluded the administrative and miscellaneous expenses.

### 4.1.4 Methodology

The present section describes single non-ambiguous Life insurance scheme for the whole population;

### 4.1.5 Annual Premium Calculation

While deriving the level annual premium, the basic principle followed is that the present value of the cost benefits paid must be exactly equal to the premium charged for the benefit.

$$P_x = C*v$$

Where  $P_x$  = Individual Level Annual Premium.

C= Death benefit amount in ₹

$v=1/ (1+i)$  i.e. the present value of death benefit, i being the interest rate.

For calculations here, we have taken  $i=6\%$ .

$$v=1/ (1+0.06) = 1/1.06=0.94$$

## **Mortality Table**

The calculation of premium of a life insurance policy primarily determined by the risk attached with assuring the person. The chances of having the person of that age die. Probabilities of deaths and survivors are needed to enable to make a reasonably accurate estimate of liabilities under the insurance contracts.

No man or machine in this world can project the death of a living being on this earth so the risk assessment is based on certain factors that in turn give the chances of the death of the person at a time. These factors have been developed overtime based on the historical experiences and the correlation between them and a person's life and developed based on various researches. Various life insurance companies and institutions broadly use a table compiled, listing the death (or mortality) rate for an age group. In India, such a table is published by Insurance Regulatory and Development Authority and is being used by almost all the insurance companies operating in India. Of course, the table is updated regularly after a certain period to take care of the change in life expectancy due to various reasons. The mortality table published by IRDA, in 2004-2006 is pasted in the section#8 in the Appendix.

Going into the specifics for what is mentioned above, we can take that out of 10,000 lives (in a sample) all aged 35, 18 dies within one year i.e. before attaining age 36, the observed mortality rate at age 35 works out to  $18/10,000=0.0018$ .

### **Estimation of Total cost of Providing Universal Life Insurance:**

Total Budget ( $B_x$ ) needed to pay the premiums of the x-aged population is given by:

$B_x = p_x * C * v * q_x$  (Ref: Mathematical Basis of Life Assurance, published by Insurance Institute of India)

Where  $p_x$  = population of age x years taken from Census 2011.

$q_x$  = death rate for age x taken from Sample Registration Survey 2011.

Total Budget ( $B_{total}$ ) needed to pay the premiums of the whole population is given by:

1.  $B_{total} = \sum_{x=18}^{59} B_x$

$$B_{total} = B_{18} + B_{19} + \dots + B_{59}$$

Premium is calculated based on the above-mentioned formula and also calculated the total budgetary requirement to pay the premium for the whole population in the table presented below.

Based on this formula we have calculated the budget needed to pay the premium for the whole population for the sum assured of 200000 and presented in the table below. The benefit amount of ₹ 2, 00,000 is same as that of (Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)).

#### 4.1.6 Detailed Results

The following table presents the age wise premium expenditure for the proposed universal life insurance for the entire population of India according to 2011 census

**TABLE 4-1: Life Insurance Premium Expenditure Age-wise**

Age	Total $p_x$	Sum Assured (in ₹), C	Death Rate for age $x, q_x$	Total premium Expenditure(in Cr ₹) $B_x = p_x * C * v * q_x$
18	27958147	200000	0.0008	422.01
19	20859088	200000	0.000848	333.75
20	28882735	200000	0.000888	483.92
21	19978972	200000	0.000919	346.43
22	23528225	200000	0.000943	418.62
23	19154055	200000	0.000961	347.30
24	19880235	200000	0.000974	365.35
25	27768078	200000	0.000984	515.54
26	20076997	200000	0.000994	376.54
27	16709350	200000	0.001004	316.53
28	22127016	200000	0.001017	424.59
29	14732524	200000	0.001034	287.42
30	30399029	200000	0.001056	605.69
31	13823245	200000	0.001084	282.72
32	17613544	200000	0.001119	371.88
33	12764541	200000	0.001164	280.34
34	13994592	200000	0.001218	321.61
35	28422631	200000	0.001282	687.51
36	15827717	200000	0.001358	405.55
37	11692231	200000	0.001447	319.22
38	17471758	200000	0.001549	510.64
39	11726347	200000	0.001667	368.83



Age	Total $p_x$	Sum Assured (in ₹), C	Death Rate for age x, $q_x$	Total premium Expenditure(in Cr ₹) $B_x = p_x * C * v * q_x$
40	28528992	200000	0.001803	970.52
41	11567894	200000	0.001959	427.58
42	13380642	200000	0.00214	540.27
43	9334352	200000	0.00235	413.88
44	9626232	200000	0.002593	470.96
45	23872961	200000	0.002874	1,294.55
46	10992678	200000	0.003197	663.09
47	7951297	200000	0.003567	535.14
48	11649592	200000	0.003983	875.48
49	7851799	200000	0.004444	658.37
50	21462422	200000	0.004946	2,002.89
51	7885966	200000	0.005483	815.83
52	7735164	200000	0.006051	883.12
53	5590790	200000	0.006643	700.75
54	6394912	200000	0.007256	875.50
55	15607546	200000	0.007888	2,322.87
56	7071837	200000	0.008543	1,139.90
57	4599026	200000	0.009225	800.49
58	6718934	200000	0.009944	1,260.62
59	5148712	200000	0.010709	1,040.33
		Sum of Premiums		27,484.11

Source: (Calculated by the author)

#### 4.1.7 Conclusions drawn from evaluation of existing schemes

Until recently, the initiation of most of these schemes was being done in a segmented manner based on the initiatives taken by individual Ministries. Identification of population groups for the purpose of insurance schemes was primarily based on occupation. Almost all life insurance schemes and health insurance schemes with varying financial support from the Government of India have been initiated for specific occupational groups. Although earlier attempts have been made to provide life and health insurance for the BPL population, these schemes have been rather ineffective in terms of coverage.

An analysis of the extent of expenditure on insurance schemes by the Government of India indicates that the total budget expenditure on Aam Admi Bima Yojana(AABY) by Government of India in 2016-17 is about ₹ 450 crore which is minuscule as a percent of

total expenditure. For most schemes, financial support was primarily in the form of premium contribution. For life insurance schemes, support was also provided through an indirect premium contribution by way of subsidization from the social security fund placed with Life Insurance Corporation (LIC). Indirect support to life insurance schemes through contributions from social security fund was only about ₹ 340 Cr. in 2014-15 and did not add significantly to the expenditure by the Government of India. See the table in section#6 in the Appendix.

The coverage of beneficiaries under most of the insurance schemes appears to be low. In several schemes, the share of beneficiaries covered in the targeted population is not much. This fact points to the low reach of these insurance schemes in the targeted population. Also, in many schemes, a few States account for the bulk of the beneficiaries. The share of the top three States in total beneficiaries is significantly higher than the share of the target group in those States for many of the schemes. The time taken for the settlement of claims is also relatively high in many schemes. The bulk of the delay in settlement of claims is often in the process of submission of relevant documents, and not after the submission of claims. In some schemes, the claim to premium ratio is also low. In life insurance schemes where claims ratio is relatively high, a significant portion of the claims is in the form of scholarships, which is not the primary objective of the insurance scheme.

The performance of the schemes is affected by several factors Bulk of the targeted population is not affiliated with any organized group through which these insurance schemes are operated. This adversely affects the coverage. Also, illiteracy and lack of basic schooling lead to problems in carrying out the operational modalities of the schemes in terms of premium requirements and submission of claims with the relevant documents. Also, in life insurance schemes, as the benefits obtained in the event of occurrence of deaths or disability is not frequently visible, there is a lack of incentive to contribute premium annually. The only incentive for the workers to join the scheme is when death is anticipated, or workers have children studying in standard IX to XII and are assured of a scholarship of ₹ 1200 per annum.

In general, it may be helpful to consolidate the individual life insurance schemes for different occupational groups (and groups like the rural landless households) and provide a universal common life insurance scheme for the entire population.

Consolidating the schemes for the entire population is likely to be advantageous in two ways. First, it increases pooling of individuals and diversifies the risk associated with the insurance schemes. Secondly, the costs associated with identifying individual members in each of the targeted groups separately are likely to be reduced substantially. It may also be important to note that the Government of India has identified 45 occupational groups as 'weak and vulnerable' and whose workers are mostly either below or marginally above the poverty line (to be considered for insurance support). The inclusion of non-BPL workers belonging to these occupational groups further, may not only help in increasing pooling and diversification of the risk associated with these schemes, but also to ensure that the workers belonging to these occupational groups who are marginally above the poverty line do not fall below the poverty line in the event of unforeseen adverse circumstances. Also, implementing the common scheme through a single agency like a single Ministry of Government of India or a public trust as in the case of Aarogyasri in Andhra Pradesh will reduce the administrative and operational costs associated with these individual schemes. The common insurance scheme may also be universal in nature and not voluntary as is the case in most of the schemes currently. This will reduce the adverse selection problems associated with the voluntary nature of these schemes. Besides, a universal scheme is also likely to generate more awareness about the scheme and make the benefits of the scheme more visible. The need for such universal life insurance schemes for the population has been felt at the policy level for long and is reflected in the fact that the National Family Benefit Scheme (now transferred to the State Governments) was introduced as early as 1995 to provide compensation to Below Poverty Line(BPL) families on death of the primary earning member. Several State Governments are already implementing life insurance schemes for the Below Poverty Line(BPL) population of their State. Recently, the Insurance Regulatory and Development Agency(IRDA) has also suggested the formulation of a comprehensive life and health insurance scheme for the Below Poverty Line(BPL) population. The need for such a universal life and health insurance scheme for unorganized workers

(about a third of whom are Below Poverty Line(BPL)) in India has also been argued by other studies (Mehrotra 2008). There are also other implementation issues that need to be looked into in the context of life insurance schemes. Experience from Aam Aadmi Bima Yojana(AABY) in Andhra Pradesh, indicate that the coverage of rural landless households under the scheme far exceeds the total number of rural landless households declared by the Central Government (based on figures from the National Sample Survey Organization(NSSO). With earlier studies indicating that the number of landless households reported by the National Sample Survey is significantly lower than the actual number of landless households, the stated commitment of Government of India of covering 1.5 crore rural landless households may need to be reconsidered.

#### **4.1.8 Total Cost and Burden on the State Exchequer**

Based on the proposal the total budget needed to pay the premium (age-wise) for the whole population comes to approximately ₹27484 Cr.

Below is the table shows the cost needed to cover the entire working population of India that is from 18-59 years of age with respect to the proposal.

**TABLE 4-2: Life Insurance proposal’s cost as a percent of government figures.**

% of Total Expenditure of all the states of India	0.82
% of GDP of India	0.24

Source: Based on the figure obtained and presented above and the Total Expenditure of India in 2014-15 and GDP of 2015.

## **4.2 Health Insurance**

### **4.2.1 Objective of the new scheme**

A universal health insurance supported by the government based on the anticipated claims.

### **4.2.2 Data used for calculation of costs**

For modeling the cost calculation for Health insurance for all, we have taken the secondary sources of data published by various government organizations as well as individuals who have already undertaken the related research work related to this field.

The claim data has been sourced from “Review of Mediciam Policy and Design of Long Term Health Insurance Products for United India Insurance Co. Ltd. (Parchure, Joshi. May 2006)”, the study of Claim Probability for each age. Age wise distribution of the population is taken from Census 2011.

Average claim amount for each age is taken from 60th round (January - June 2004) National Sample Survey Office, M/o Statistics and Programme Implementation(MOSPI),Government of India (GOI) . The aim of these surveys was to evolve an appropriate data collection method for studying morbidity profile in India. ‘Morbidity and Health care’ at the request of Ministry of Health and Family Welfare, during the period January to June 2004. This survey covered the curative aspects of the general health care system in India and also the utilization of health care services provided by the public and private sector, together with the expenditure incurred by the households for availing these services.

#### **4.2.3 Assumptions**

- The proposed scheme in the study is applicable only for the population of 18 years and above.
- For calculation, population distribution data is taken from Census 2011.
- The specific present value tables of 6% rate of Interest have been used from actuarial tables for calculating the fund value for the insurance proposal schemes.
- Average claim amount and average claim probability may lead to some variation when compared with the actuals.
- With respect to budget requirement to implement the proposals in our study, we have excluded the administrative and miscellaneous expenses.

#### **4.2.4 Methodology**

How do the insurers calculate the health insurance Premiums, what do they consider while calculating the risk?

1. Some private health insurance schemes calculate flat premiums for specified age groups and have a limitation on entry age into the schemes.
2. Some calculate premiums according to detailed schedules by age and sex.
3. Some private health insurance schemes build up reserves, to avoid high premiums for the elderly members of the scheme.
4. Others charge premiums that change each year in accordance with the age of the insured person.

Normally, in addition to the calculation of the premium itself, there are some elements in private health insurance schemes, such as co-payments, exclusions of risks by not covering pre-existing illnesses, and health examination upon entry into the scheme, which sometimes forms part of any individual insurance policy.

Some health insurance schemes reserve the right to cancel the contract when an individual fall ill, or annually renew individual contracts, while other insurance schemes guarantee life-long, full service as long as the premium is paid. In this context, national insurance legislation and the nature of public insurance supervision play an important role.

#### **4.2.5 Calculation of the Risk Premium**

The risk premium is the average amount of claims per person in a particular age group is covered by the premium every year.

One of the main determining factors of health insurance premiums is the average amount of claim per capita. The per capita claim is the expected value of insurance payments for a single risk during a certain period, normally for a calendar year. If the group of insured persons is large enough, according to the law of large numbers, the expected value can be estimated as the average per capita claim:

$$C = P/L$$

Where:

C = average per capita claim

$P$  = total payments in a period

$L$  = number of insured persons

The above formula could be interpreted as the overall risk premium for the entire insured population of a specific health insurance scheme. However, premiums are, in practice, set for each subgroup of insured persons. The level of disaggregation is based on an analysis of the claim structure for various subgroups of insured persons. General patterns may be observed, such as a significant correlation between per capita claims and age of the insured person, or the type and nature of the specific benefit (for example ambulatory care or inpatient care). Another determinant of utilization may be the profession of a beneficiary, especially for daily sickness cash benefits. (Cichon et al., 1999)

The general trend of increase in health care costs is also very important, especially for tariffs without upper ceilings on total annual reimbursement.

Pre-existing illnesses are another factor that influences personal risk. Although it may be important, in theory, to distinguish as many influencing factors as possible, in practice there is a limitation on the depth of differentiation of risks, because the law of large numbers is only applicable for a certain number of samples of each risk group. A compromise should be made, taking the limited number of insured persons into consideration.

Thus, the various risk groups should be determined, so that on the one hand each group is large enough, while on the other hand the differentiation according to risk is sufficient to allow prudent future premium calculations. Individual risks to a large extent are usually related to the age and sex of the insured persons, directly or indirectly. Hence, average per capita claim amounts must be determined according to the age and sex.

Taking in to account special effects in the starting period of every insurance policy (for example: any waiting period, or savings due to selection), per capita claims are usually computed using data that exclude new contracts- for example, those with a duration of less than one year.

The structures of claims may vary according to the type of benefits, age, and sex. For example, in many countries, although there is no great difference between the development

of costs according to age and sex in ambulatory care, the cost patterns of men and woman by age in hospital care normally quite different, because of deliveries in hospitals and lower health costs for women aged 60 and more.

The risk premium necessary to cover a subscribed risk in the short term is equivalent to the average per capita claim amount. It is composed of a series of average per capita claim amounts, classified by type of benefits, age, and sex.

In the case of pre-existing illnesses, the normal premium may be adjusted by risk-related surcharges. More detailed, differentiated statistics are necessary in order to calculate these surcharges. If a private insurance company were to work on a risk premium basis, it would also multiply the above net risk premium by a certain factor to cover administrative expenditure.

To calculate the present value of income and expenditure, an actuarial interest rate is assumed. Since actual interest rates change remarkably over time, the actuarial rate should be assumed prudently, and with a margin of safety.

To calculate the net premium, we need the present value of the benefit premium. The claim amounts increase due to the ageing of the group, as well as any general increase in the cost of medical care.

For this study, the premium can be calculated considering the following factors in addition to what's conventionally considered:

1. Age wise distribution of the population.
2. Claim Probability for each age.
3. Average claim amount for each age.

Below is the analytical framework based these considerations.

#### **4.2.6 Analytical framework**

Traditionally the premium is calculated as below:



Let us assume constant premium of a person who enters the scheme at age  $x$  as  $P_x$ . We assume, for simplicity of argument, that the flow of money, such as for benefit or premium payments, occurs at the beginning of each period. The present value of the series of premiums is

$$V_{P_x} = P_x * \ddot{a}_x$$

Which should be equal to the present value of the benefit i.e.:

$$V_{P_x} = v^n * V_{\beta x}$$

In case of single premium, the formula could be:

The present value of benefit should be equal to the premium.

$$P_x = v^n * V_{\beta x}$$

Where  $n$  denotes the number of years the policy in force.

#### **4.2.7 Premium Calculation for providing Health Insurance to every individual of the country**

Instead of going the traditional way let us calculate the amount ( $P$ ) needed to pay the claimed benefit to the population based on the below:

- Age wise distribution of the population ( $DP_{age}$ ) (Source: Census 2011)
- Claim Probability for each age,  $P(C_{age})$  (Source: Dr. Rajas Parchure, Medha Joshi, 2006)
- Average claim amounts for each age. ( $A_{age}$ ) (Source: (Insurance Information Bureau, 2012)

So, with the help of this data, we can calculate claim amount and hence the budget needed to pay the same for the whole population of the informal sector workers.

$$P = DP_{age} * P(C_{age}) * A_{age}$$

#### 4.2.8 Detailed Results

Based on the formulae explained in the previous section, the total expenditure, gender wise and across different age groups, is calculated and consolidated information is presented in the subsequent table.

**Table 4-3 : Aggregate Budgetary (Male and Female) requirement for the health proposal**

Age	Claim Probability	Average claim amount (Male)	Average claim amount (Female)	Total Budget (Male)	Total Budget (Female)	Total Budget (Male + Female), P
18	0.03072	26667	21716	1,230.52	863.07	2,093.59
19	0.031468	26667	21716	910.02	684.36	1,594.38
20	0.032195	27848	23126	1,335.18	1,041.66	2,376.84
21	0.032901	27848	23126	965	718.77	1,683.77
22	0.033589	27848	23126	1,159.22	864.96	2,024.19
23	0.03426	27848	23126	922.99	751.09	1,674.07
24	0.034915	27848	23126	981.36	790.26	1,771.62
25	0.035555	31301	26909	1,592.74	1,287.46	2,880.19
26	0.036181	31301	26909	1,168.18	950.42	2,118.60
27	0.036794	31301	26909	984.93	807.65	1,792.58
28	0.037395	31301	26909	1,254.77	1,147.85	2,402.62
29	0.037984	31301	26909	885.25	744.8	1,630.04
30	0.038561	32687	31204	1,969.95	1,777.22	3,747.16
31	0.039128	32687	31204	915.43	813.85	1,729.28
32	0.039685	32687	31204	1,141.66	1,091.27	2,232.94
33	0.040233	32687	31204	803.38	835.57	1,638.95
34	0.040771	32687	31204	928.11	894.42	1,822.53
35	0.041301	34438	33686	2,138.70	1,862.34	4,001.04
36	0.041822	34438	33686	1,161.94	1,093.26	2,255.21
37	0.042335	34438	33686	843.4	842.45	1,685.84
38	0.042841	34438	33686	1,193.62	1,353.86	2,547.49
39	0.04334	34438	33686	886.55	844.8	1,731.35
40	0.043831	38670	34142	2,571.81	1,998.63	4,570.44
41	0.044316	38670	34142	1,057.75	816.37	1,874.12
42	0.044794	38670	34142	1,187.73	997.72	2,185.45
43	0.045266	38670	34142	782.25	751.94	1,534.19
44	0.045732	38670	34142	861.93	742.01	1,603.95
45	0.046192	40445	34632	2,369.89	1,789.73	4,159.62

<b>Age</b>	<b>Claim Probability</b>	<b>Average claim amount (Male)</b>	<b>Average claim amount (Female)</b>	<b>Total Budget (Male)</b>	<b>Total Budget (Female)</b>	<b>Total Budget (Male + Female), P</b>
46	0.046647	40445	34632	1,082.09	849.28	1,931.37
47	0.047096	40445	34632	770.13	637.43	1,407.57
48	0.04754	40445	34632	1,070.70	1,001.19	2,071.88
49	0.047978	40445	34632	796.7	622.44	1,419.14
50	0.048412	41648	35779	2,294.37	1,746.53	4,040.90
51	0.049633	41648	35779	893.74	632.62	1,526.36
52	0.050179	41648	35779	850.3	658.26	1,508.56
53	0.050725	41648	35779	593.22	505.03	1,098.26
54	0.05127	41648	35779	696.88	574.41	1,271.29
55	0.051816	42664	34943	1,717.55	1,419.19	3,136.74
56	0.052362	42664	34943	819.15	623.01	1,442.16
57	0.052907	42664	34943	528.06	417.75	945.8
58	0.053453	42664	34943	700.69	681.08	1,381.77
59	0.053999	42664	34943	600.82	479.41	1,080.23
60	0.054544	42865	41702	2,028.73	2,077.54	4,106.27
61	0.05509	42865	41702	730.97	673.44	1,404.41
62	0.055636	42865	41702	689.69	661.96	1,351.65
63	0.056181	42865	41702	476.15	472.53	948.69
64	0.056727	42865	41702	500.92	479.49	980.41
65	0.057273	44866	43994	1,612.64	1,699.88	3,312.52
66	0.057818	44866	43994	591.1	568.07	1,159.17
67	0.058364	44866	43994	354.48	321.31	675.79
68	0.05891	44866	43994	433.47	494.58	928.05
69	0.059455	44866	43994	372.4	358.65	731.06
70	0.060001	46699	47186	1,511.31	1,583.37	3,094.68
71	0.060547	46699	47186	448.12	428.35	876.46
72	0.061092	46699	47186	335.71	309.66	645.37
73	0.061638	46699	47186	203.9	191.42	395.32
74	0.062184	46699	47186	228.77	215.11	443.88
75	0.062729	52111	48713	744.88	761.99	1,506.87
76	0.063275	52111	48713	274.42	257.34	531.76
77	0.063821	52111	48713	145.8	123.32	269.11
78	0.064366	52111	48713	170.04	176.04	346.09
79	0.064912	52111	48713	146.91	143.96	290.86
80	0.065458	51730	62584	584.17	843.79	1,427.97
81	0.066003	51730	62584	167.82	221.53	389.35

Age	Claim Probability	Average claim amount (Male)	Average claim amount (Female)	Total Budget (Male)	Total Budget (Female)	Total Budget (Male + Female), P
82	0.066549	51730	62584	105.47	123.87	229.34
83	0.067095	51730	62584	66.97	78.62	145.59
84	0.06764	51730	62584	73.83	89.96	163.78
85	0.068186	54691	39792	216.49	185.66	402.15
86	0.068732	54691	39792	81.14	63.46	144.6
87	0.069277	54691	39792	42.57	30.07	72.63
88	0.069823	54691	39792	42.91	34.25	77.16
89	0.070369	54691	39792	38.1	32.04	70.14
90	0.070914	54691	39792	139.71	133.43	273.14
91	0.07146	54691	39792	46.35	39.72	86.08
92	0.072006	54691	39792	29.7	22.39	52.09
93	0.072551	54691	39792	18.34	13.98	32.32
94	0.073097	54691	39792	20.78	16	36.78
95	0.073643	54691	39792	50.32	43.25	93.57
96	0.074188	54691	39792	23.49	18.41	41.9
97	0.074734	54691	39792	14.4	10.76	25.16
98	0.07528	54691	39792	19.92	16.81	36.73
99	0.075825	54691	39792	11.73	10.95	22.68
100	0.076371	54691	39792	120.85	96.17	217.01

Based on the framework we have worked out the state-wise budget needed to support the entire population of that state and presented in the table below.

We have calculated the expenditure for the health insurance proposal need to pay the claim for the people of 18 to 100 years of age.

**TABLE 4-4: Health insurance proposal claim expenditure**

State	Population	Total Health Expense (in Rs Cr.)
India	658362805	1,15,445.67
Andaman & Nicobar Islands	242480	39.55
Andhra Pradesh	49045702	8,724.24
Arunachal Pradesh	729023	111.48
Assam	17030487	2,800.33
Bihar	48485740	8,423.75
Chandigarh	663906	105.86
Chhattisgarh	13769737	2,362.83

State	Population	Total Health Expense (in Rs Cr.)
Dadra & Nagar Haveli	204237	29.26
Daman & Diu	164608	23.37
Goa	910859	105.86
Gujarat	34497721	5,913.29
Haryana	14006464	2,428.88
Himachal Pradesh	3997672	735.15
Jammu & Kashmir	6607165	1,119.13
Jharkhand	16678561	2,824.71
Karnataka	35910215	6,340.10
Kerala	19773024	3,945.47
Lakshadweep	39187	6.8
Madhya Pradesh	38070713	6,561.83
Maharashtra	64748245	11,639.54
Manipur	1614468	267.56
Meghalaya	1442045	221.73
Mizoram	605651	98
Nagaland	1053997	163.52
Nct Of Delhi	10086616	1,638.44
Odisha	23457493	4,226.98
Puducherry	768115	137.82
Punjab	16096238	105.86
Rajasthan	35029919	5,968.70
Sikkim	362817	58.41
Tamil Nadu	43908716	8,044.40
Tripura	2154750	365.4
Uttar Pradesh	97415590	16,803.19
Uttarakhand	5368765	948.31

#### 4.2.9 Total Cost and Burden on the State Exchequer

The cost of the health insurance scheme, proposed in our study, that can cover the people from 18-100 years of age, comes to around ₹115445 Cr. which is 1.02% of GDP and 6.94% of the total expenditure of Government of India.

**Table 4-5: Health Insurance Proposal's Cost As A Percent Of Government Figures.**

% of Total Expenditure of all the states of India (2014-15)	6.94
% of GDP of India (2015).	1.02

Source: Based on the figure obtained and presented above

As per the 12th five-year plan, Government planned to increase public expenditure on health from the current level of 1.2 per cent of GDP to at least 2.5 per cent by the end of the Twelfth Plan, and to at least 3 per cent of GDP by 2022.

### **4.3 Old Age Pension**

#### **4.3.1 Objective of the new scheme**

Extend the Atal Pension Yojana to accommodate the people of up to 59 years of age.

#### **4.3.2 Data used for calculation of costs**

- Population sourced from Census of India-2011.
- Present value calculated based on assumption of 6% rate of Interest.  
$$v=1/(1+0.06) = 1/1.06=0.94$$
- The amount of contributions and pension for different categories in Atal Pension Yojana.

#### **4.3.3 Assumptions**

1. For calculation, population distribution data is taken from Census 2011.
2. The specific present value tables of 6% rate of Interest have been used from actuarial tables for calculating the fund value for the insurance proposal schemes.
3. The basis of old age pension scheme is the number of years, the accumulated amount is, sufficient to pay the premium has been kept constant.
4. With respect to budget requirement to implement the proposals in our study, we have excluded the administrative and miscellaneous expenses.

#### **4.3.4 Methodology**

To accommodate the people above forty years of age, there is a need to find out the fund accumulated vs the pension paid over the years, for how many years will that fund be sufficient. The actuarial calculations as needed are also mentioned.

The various abbreviations used in this section are as follows:

$C_{ind}$ : Individual contributions of premium

$C_{gov}$ : Government contributions of premium

$F_{ind}$ : Total fund (future) value of accumulated annuity due to individual contributions

$F_{gov}$ : Total fund (future) value of accumulated annuity due to government contributions

$\ddot{s}_{years}$ : Actuarial accumulated annuity for unit fund value at the time of last payment

$s_{years}$ : Actuarial accumulated annuity for unit fund value after the last payment

$T_{years}$ : Number of years the pension can be paid based on the fund accumulated.

1. Analyze the existing policy of people below forty years.

1.1. Calculate the total fund  $F_{ind}$  (future) value of accumulated annuity ( $\ddot{s}_{years}$ ) due to the series of individual contributions of premium,  $C_{ind}$

$$F_{ind} = 12 * C_{ind} * \ddot{s}_{years}$$

1.2. Calculate the total future value of the government contributions,  $C_{gov}$ , in the premium based on the guidelines mentioned above under section **Atal Pension Yojana**.

This will be based on the future value of accumulated annuity ( $s_{years}$ ) due to the series of (maximum five) payments by government at the end of the tenure that is, at the attainment of 60 years of the person insured.

$$F_{gov} = 12 * C_{gov} * s_{years} * (1+i)^{years}$$

1.3. Add the above two values (1.1+1.2) to get the total fund available at the individual's 60 years of age.

$$F_{total} = F_{ind} + F_{gov}$$

1.4. Using actuarial calculations find out the number of years ( $T_{years}$ ) the fund calculated in step 1.3 will be exhausted by paying the guaranteed and fixed pension amount. This will be based on present value of the series of pension payments and finding the number of years this amount is equal to the total fund accumulated ( $F_{total}$ )

2. Taking the number of pension years ( $T_{years}$ ) calculated in step 1.4 as a standard yardstick do the reverse calculations for the people above forty years and arrive at the amount

2.1. Take the number of years as calculated in 1.4 ( $T_{\text{years}}$ )

2.2. Individual contribution can be fixed at Rs1000. As government pension, since anyway the individual contribution would be more, so it'd come as Rs1000 following the guidelines under section **Atal Pension Yojana**.

2.3. Find out the amount ( $F_{\text{total}}$ ) needed to make the series of pension payments for the number of years ( $T_{\text{years}}$ ) in 2.1

$$F_{\text{total}} = 1000 * a_{\text{years}}$$

2.4. Deduct the accumulated fund due to the government contribution ( $F_{\text{gov}}$ ) from the amount got from  $F_{\text{total}}$ . This will serve as an amount accumulated due to individual contributions ( $F_{\text{ind}}$ )

$$F_{\text{ind}} = F_{\text{total}} - F_{\text{gov}}$$

2.5. Find out the actuarial series of payments which would sum up to the amount ( $F_{\text{ind}}$ ) arrived at in 2.4 in  $T_{\text{years}}$  based on fixed rate of interest. This will be through actuarial calculations using some extrapolations/interpolations of the table values. This will be the regular contribution from the individual.

$$C_{\text{ind}} = F_{\text{ind}} / 12$$

2.6. The government contribution can be multiplied by the Census figure of that age to get financial burden on state exchequer.

#### 4.3.5 Detailed Results

**TABLE 4-6 : Proposed Contributions for ₹1000 Monthly Pension**

Age	Number of years of contribution, $T_{\text{years}}$	Monthly contribution (in ₹), $C_{\text{ind}}$	Government contribution (in ₹), $C_{\text{gov}}$
18	42	42	252
19	41	42	252
20	40	50	300



<b>Age</b>	<b>Number of years of contribution, <math>T_{\text{years}}</math></b>	<b>Monthly contribution (in ₹), <math>C_{\text{ind}}</math></b>	<b>Government contribution (in ₹), <math>C_{\text{gov}}</math></b>
21	39	50	300
22	38	50	300
23	37	50	300
24	36	50	300
25	35	76	456
26	34	76	456
27	33	76	456
28	32	76	456
29	31	76	456
30	30	116	696
31	29	116	696
32	28	116	696
33	27	116	696
34	26	116	696
35	25	181	1000
36	24	181	1000
37	23	181	1000
38	22	181	1000
39	21	181	1000
40	20	291	1000
41	19	291	1000
42	18	291	1000
43	17	291	1000
44	16	291	1000
45	15	400	1000
46	14	400	1000
47	13	400	1000
48	12	400	1000
49	11	450	2000
50	10	500	3250
51	9	600	4500
52	8	700	6000
53	7	850	7600
54	6	1000	9350

Age	Number of years of contribution, $T_{\text{years}}$	Monthly contribution (in ₹), $C_{\text{ind}}$	Government contribution (in ₹), $C_{\text{gov}}$
55	5	1300	11225
56	4	1700	16500
57	3	2500	20000
58	2	3700	27500
59	1	8000	50000

The above exercise can be done for the all the pension amounts i.e. Rs2000, Rs3000, Rs4000 and Rs5000 as the APY mentions.

The subsequent table presents the budgetary requirement for supporting the pension proposal for the whole population i.e. from eighteen to fifty-nine years of age.

**TABLE 4-7: Aggregate expenditure for pension proposal**

Age	Monthly pension guaranteed	Expenditure of Government in ₹Cr.
18	1000	3,522.73
19	1000	2,628.25
20	1000	4,332.41
21	1000	2,996.85
22	1000	3,529.23
23	1000	2,873.11
24	1000	2,982.04
25	1000	6,331.12
26	1000	4,577.56
27	1000	3,809.73
28	1000	5,044.96
29	1000	3,359.02
30	1000	10,578.86
31	1000	4,810.49
32	1000	6,129.51
33	1000	4,442.06
34	1000	4,870.12
35	1000	14,211.32
36	1000	7,913.86
37	1000	5,846.12
38	1000	8,735.88
39	1000	5,863.17
40	1000	14,264.50

Age	Monthly pension guaranteed	Expenditure of Government in ₹Cr.
41	1000	5,783.95
42	1000	6,690.32
43	1000	4,667.18
44	1000	4,813.12
45	1000	11,936.48
46	1000	5,496.34
47	1000	3,975.65
48	1000	5,824.80
49	1000	3,925.90
50	1000	10,731.21
51	1000	3,942.98
52	1000	3,867.58
53	1000	2,795.40
54	1000	3,197.46
55	1000	7,803.77
56	1000	2,828.73
57	1000	1,379.71
58	1000	1,343.79
59	1000	514.87

#### 4.3.6 Total Cost and Burden on the State Exchequer

The cost of the Pension scheme, proposed in our study, that can cover the people from 18-59 years of age, comes to around ₹ 225172 Cr. which is 2% of GDP and 13.5% of the total expenditure of Government of India.

**TABLE 4-8: Pension Proposal's cost as a percent of government's Total Expenditure and GDP of India.**

% of Total Expenditure of all the states of India (2014-15)	3.15
% of GDP of India of (2015)	2

Source: Based on the figure obtained and presented above

#### 4.4 Maternity Benefit

##### 4.4.1 Objective of the new scheme

Universalization of the maternity benefit. Make it available to the whole fertile population between 18-45 years of age.

#### **4.4.2 Data used for calculation of costs**

To come up with a universal maternity benefit cost for all the states of India for the entire child bearing women population we would like to understand in terms of number of pregnant women to be covered every year and for that it is important to know the figures of pregnant and lactating women. The National Family Health Survey – Round 3 conducted in 2005–06 deals with the same. It covers the women of age 15–45 of which 73 percent of women are in the prime childbearing ages of 15–35 years.

The survey found the crude birth rate (CBR) to be 23.1 births per 1,000 populations and the total fertility rate (TFR) (the average number of children a woman will have in her lifetime) was 2.7 children per woman. In addition, some of the other findings of the survey are as below

- Seventy percent of urban total fertility and 63 percent of rural total fertility is concentrated in the prime childbearing ages 20–29.
- There is also a moderate amount of early childbearing at age 15–19.
- Fertility at age 15–19 accounts for 14 percent of total fertility in urban areas and 18 percent in rural areas.
- Fertility at ages 35 and older accounts for only 4 percent of total fertility in urban areas and 7 percent in rural areas.

Using the information below we have taken the age group of 18 to 45 years. Starting age is chosen as 18 since that's the minimum legal age for a girl to get married under Indian constitution. The upper age is 45, the same limit as chosen by the survey just for the simple reason of not missing out any eligible child bearing mother.

Secondly the benefit amount has been borrowed from the JSY scheme since the scheme fares reasonably well in most of the states. Please refer to the table 6-4 above.

Thirdly the benefit will be extended to only the two children in line with the government's policy to encourage couples to have two children.

Population data sourced from Census of India-2011

#### 4.4.3 Methodology

The cost of providing the maternity benefit for the whole population, C is given by

$$C=P*B*N \text{ where}$$

P= Population of eligible women

B=Benefit amount per child per women

N=Number of children

#### 4.4.4 Detailed Results

The expenditure to be incurred on the maternity benefit proposal is presented in the table below.

**TABLE 4-9: Aggregate Expenditure for Maternity Proposal**

Age	Total Pop <sup>n</sup>	Rural Pop <sup>n</sup>	Urban Pop <sup>n</sup>	Total Rural Exp.(in ₹ Cr.)	Total Urban Exp. (in ₹ Cr.)	Total Exp. (Rural + Urban) in ₹ Cr.
18	12937296	9040991	3896305	1,808.20	467.56	2,275.75
19	10014673	6696436	3318237	1,339.29	398.19	1,737.48
20	13990570	9693167	4297403	1,938.63	515.69	2,454.32
21	9446694	6096606	3350088	1,219.32	402.01	1,621.33
22	11135249	7408211	3727038	1,481.64	447.24	1,928.89
23	9479866	6189724	3290142	1,237.94	394.82	1,632.76
24	9787150	6308676	3478474	1,261.74	417.42	1,679.15
25	13456554	9030764	4425790	1,806.15	531.09	2,337.25
26	9761967	6265512	3496455	1,253.10	419.57	1,672.68
27	8157318	5121099	3036219	1,024.22	364.35	1,388.57
28	11407090	7733432	3673658	1,546.69	440.84	1,987.53
29	7286828	4541474	2745354	908.29	329.44	1,237.74
30	14770033	10083015	4687018	2,016.60	562.44	2,579.05
31	6665743	4124163	2541580	824.83	304.99	1,129.82
32	8812439	5877203	2935236	1,175.44	352.23	1,527.67
33	6655662	4396858	2258804	879.37	271.06	1,150.43
34	7030400	4496348	2534052	899.27	304.09	1,203.36

Age	Total Pop <sup>n</sup>	Rural Pop <sup>n</sup>	Urban Pop <sup>n</sup>	Total Rural Exp.(in ₹ Cr.)	Total Urban Exp. (in ₹ Cr.)	Total Exp. (Rural + Urban) in ₹ Cr.
35	13385965	9032106	4353859	1,806.42	522.46	2,328.88
36	7760149	5044464	2715685	1,008.89	325.88	1,334.78
37	5907352	3752001	2155351	750.4	258.64	1,009.04
38	9381357	6458100	2923257	1,291.62	350.79	1,642.41
39	5786480	3650475	2136005	730.1	256.32	986.42
40	13355581	9201211	4154370	1,840.24	498.52	2,338.77
41	5395597	3353583	2042014	670.72	245.04	915.76
42	6523816	4293776	2230040	858.76	267.6	1,126.36
43	4865438	3174426	1691012	634.89	202.92	837.81
44	4752294	2992777	1759517	598.56	211.14	809.7
45	11187786	7581010	3606776	1,516.20	432.81	1,949.02
						<b>44,822.69</b>

#### 4.4.5 Total Cost and Burden on the State Exchequer

The cost of the Maternity Benefit, proposed in our study that can cover the female from 18-45 years of age, for birth of two children comes to around ₹ 44822 Cr. which is 0.76% of GDP and 2.6% of the total expenditure of Government of India.

**TABLE 4-10: Maternity proposal's cost as a percent of government's Total Expenditure and GDP of India.**

% of Total Expenditure of all the states of India (2014-15)	2.57
% of GDP of India (2015)	0.39

Source: Based on the Results obtained and presented above by the author

## **Chapter 5**

# **Financial Feasibility and Sustainability of Universalization of Proposed Comprehensive Social Security Programme**

The objectives adopted for the study included the analysis and evaluation of the existing schemes under Life insurance, Health insurance, Old age pension and maternity benefits. The recent and most relevant schemes have been evaluated for example AABY and PMJJBY for Life insurance, RSBY for Health insurance, APY for Old Age Pension and JSSY for Maternity Benefit. As discussed in Chapter 2, Review of Literature, the schemes have been revolutionary and have seen reasonable success but there have been some gaps that were some of the motivations behind the study. We have listed the gaps in the respective sections of the study that dealt with the corresponding schemes. In the due course of the evaluation and study we have come up with the proposed changes in the existing ones or new proposals in some cases, to overcome the gaps.

The current chapter examines the financial feasibility and sustainability of the proposed universal comprehensive social security scheme. The financial feasibility rests upon the current expenditure required if the scheme is to be implemented, the burden on the exchequer given the present number of beneficiaries. The financial sustainability of the product would mean the estimated future costs of continuing the scheme in future and its share in the fiscal expenditure given the estimated growth of public revenue and public expenditure. The chapter is divided into five sections. The each of the first four sections deals with the financial feasibility, fiscal sustainability and burden on exchequer of each of the four pillars of social security. The last section sums up the chapter with the concluding remarks on financial feasibility and fiscal sustainability of the proposed scheme.

### **5.1 Life Insurance Proposal**

As encountered in the various sources during the review of literature, there have been schemes started at various points of time in India to provide the life insurance to the citizens. The schemes have worked well within the contexts they have been conceptualized

for, be it the working group or social group or the specific state they were introduced or targeted for. The ones that are existing currently and primarily mooted by Central government are AABY and PMJJBY. While the schemes have seen reasonable success especially if we consider the transition the country has been and still going on – from a below par developing country to a driver of the world economy. But given the stage we are in the journey of progress to a self-sustained developing country, there is a need to plug the holes in the schemes to make them wholesome, universal ensuring the full coverage to the intended population.

As in the Life insurance chapter of the study we evaluated the current schemes and mentioned the gaps identified in the same. The primary ones are related to the universalization of the schemes, affordability of the premium amount that too at every renewal of the policy and the ambiguity since most schemes are fragmented.

To overcome the issues, we have come up with the proposal in that the government can bear the premium expenses and the policy will cover the entire working population.

As already mentioned in the chapter 4 on Proposed Product Design for Comprehensive Social Security, in the study and the formula explained in the analytical framework section 4.1.4 of that chapter, we have calculated the budgetary requirement to pay the premium for the whole population for the Sum Assured of ₹ 200000. This is to universalize the life insurance without any conditions for example economic groups, social category etc. And it could be one of the ways a single life insurance scheme implemented across all ages with a universal scheme having a uniform sum assured. It covers some of the prominent the weaknesses of PMJJBY and AABY.

The total life insurance claim expense for the whole population aged between 18 to 59 years of age, based on the death rate, comes to approximately ₹ 27484 Cr. as calculated by the formula explained in the analytical section of the Life Insurance chapter of this study and the amount arrived at in the table 3-5.

In addition, if we calculate the budget needed for the scheme PMJJBY in its present form with the premiums charged at the flat rate of ₹ 330 (out of which the ₹ 289 is used towards the risk) doesn't make it a feasible scheme to support the whole population especially the



extended group since including them increases the deficit to meet the claims. Below is the table depicting the figures.

**TABLE 5-1: Deficit with PMJJBY**

<b>Age group supported (in years)</b>	<b>Sum of claims expected (in ₹ Cr.)</b>	<b>Sum of premiums collected (in ₹ Cr.)</b>	<b>Deficit (in ₹ Cr.)</b>
18-50 (the present supported group)	17644.69	17097.52	547
18-59 (extrapolated/extended group for calculations)	27484	19026.6	8457.4

Source: Actuarial calculations by researcher using the population from Census 2011

The table above shows that there is a deficit, the scheme Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) would face to cover the population in its existing form (i.e. covering the population from 18 to 50 years of age) to the tune of Rs547 Cr. and if the same scheme is extended to cover the population up to 59 years of age i.e. the entire working population, the deficit increases to the tune of Rs8457.4 Cr.. With the proposal mentioned in the study we can address the whole of age group i.e. 18 to 59 years of age, providing them the cover of ₹200000 which is same as offered by Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY).

Based on the proposal the total budget needed to pay the premium (age-wise) for the whole population comes to approximately ₹27484 Cr.

The subsequent table shows the cost needed to cover the entire working population of India (i.e. from 18-59 years of age) with respect to the proposal.

**TABLE 5-2: Life Insurance proposal's cost as a percent of government figures.**

% of Total Expenditure of all the states of India	0.82
% of GDP of India	0.24

Source: Based on the figure obtained and presented above and the Total Expenditure of India in 2014-15 and GDP of 2015.

### 5.1.1 Financial Feasibility

The cost incurred to cover whole population comes to approximately ₹27484 Cr. i.e. 0.24% of the GDP or 1.65% of the total expenditure of India (if borne by the central government alone). According to ILO(2008) calculations, less than 2 per cent of global Gross Domestic Product (GDP) would be necessary to provide a basic set of social security benefits to all of the world's poor. Six per cent of global GDP would be needed to provide a basic set of benefits to all who have no access to social security.(Can low-income countries afford basic social security?,ILO 2008) Hence the cost of the proposed scheme seems to be within the reasonable limits and hence can be borne by the government. The benefit amount of ₹ 2,00,000/- is same as that of Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) but in that case the coverage is limited to 18-50 years and the premium of ₹ 330 is charged from the insured. While with our proposal we have extended to cover the entire population from 18-59 years of age.

#### Life Insurance proposal premium expenditure state-wise

We have calculated the expenditure of the premium for the life insurance proposal need to cover the people of 18 to 59 years of age.

**TABLE 5-3: Life insurance proposal premium expenditure**

State	Population of ages 18-59 years	Premium Expense (in ₹ Cr)
Andaman & Nicobar Islands	242480	10.2
Andhra Pradesh	49045702	2,035.18
Arunachal Pradesh	729023	27.52
Assam	17030487	676.32
Bihar	48485740	1,936.13
Chandigarh	663906	26.95
Chhattisgarh	13769737	569.88
Dadra & Nagar Haveli	204237	6.95
Daman & Diu	164608	5.32
Goa	910859	42.19
Gujarat	34497721	1,473.23
Haryana	14006464	561.92
Himachal Pradesh	3997672	177.97
Jammu & Kashmir	6607165	262.37
Jharkhand	16678561	681.24

Karnataka	35910215	1,503.29
Kerala	19773024	1,007.30
Lakshadweep	39187	1.8
Madhya Pradesh	38070713	1,539.55
Maharashtra	64748245	2,727.96
Manipur	1614468	67
Meghalaya	1442045	54.41
Mizoram	605651	24.69
Nagaland	1053997	39.64
Nct Of Delhi	10086616	403.16
Odisha	23457493	1,008.78
Puducherry	768115	34.25
Punjab	16096238	682.71
Rajasthan	35029919	1,406.26
Sikkim	362817	14.29
Tamil Nadu	43908716	1,994.31
Tripura	2154750	89.43
Uttar Pradesh	97415590	3,882.53
Uttarakhand	5368765	222.83
West Bengal	53421879	2,286.54
<b>India</b>	<b>658362805</b>	<b>27,484.11</b>

### 5.1.2 Sustainability

The proposed life insurance of ₹ 200000 for all the people of aged 18-59 seems to be sustainable. The present scheme Pradhan Mantri Jeevan Jyoti Bima Yojana(PMJJB Y) requires renewal every year with ₹330, which is same for all ages. It is difficult to administer and increases the chances of lapse and hence it increases the load on managing and administrating agencies of the scheme. The proposal in the study overcomes the problems in that the scheme will be funded by the government solely and that makes it easier to manage and ensures it to be long lasting and since the beneficiary does not have to pay premium for getting coverage, the chances of lapses are dim.

For financial sustainability in future, we have calculated the projected cost of the proposed expenditure for year 2021.

## Assumptions, Methodology and Data Sources for projections

**Assumptions:** For the future cost calculation, it is difficult to predict mortality as it is going to decrease. This makes our future projection of the budget for 2021, on a higher side but helps ascertaining its sustainability on stricter grounds. So, mortality rates are considered same as taken in proposed proposal.

Inflation Rate in India averaged 6 percent from 2012 until 2018.

**Methodology:** For projected calculation for Life insurance the budget of the proposal amount with the parameters of 2011 has been multiplied by projected inflation of 2021 and considering the projected population of 2021, to find out the overall budget needed.

**Data Sources** The 2021 projected Population is taken from Population projections for india and states 2001-2026, 2006. Report of the Technical group on Population projections constituted by the National Commission on Population, May 2006.

Inflation rates are taken from the <http://stats.oecd.org/> .

The sum assured considering Aggregate Claim amount with projected CPI inflation of 2021) Inflation comes to ₹ 363379.56. This amount is used in the table below to calculate the budget of the projected population.

**TABLE 5-4: Life Insurance Projected Premium Expenditure Age-Wise**

Age	Total p <sub>x</sub>	Sum Assured considering Inflation (in ₹ Cr.)
18	22465600	363379.56
19	22465600	363379.56
20	23417400	363379.56
21	23417400	363379.56
22	23417400	363379.56
23	23417400	363379.56
24	23417400	363379.56
25	23939000	363379.56
26	23939000	363379.56
27	23939000	363379.56
28	23939000	363379.56
29	23939000	363379.56

30	23147000	363379.56
31	23147000	363379.56
32	23147000	363379.56
33	23147000	363379.56
34	23147000	363379.56
35	19944600	363379.56
36	19944600	363379.56
37	19944600	363379.56
38	19944600	363379.56
39	19944600	363379.56
40	17318800	363379.56
41	17318800	363379.56
42	17318800	363379.56
43	17318800	363379.56
44	17318800	363379.56
45	15608200	363379.56
46	15608200	363379.56
47	15608200	363379.56
48	15608200	363379.56
49	15608200	363379.56
50	13984800	363379.56
51	13984800	363379.56
52	13984800	363379.56

Source: (Calculated by the author)

Presented below is the comparison of cost of Life Insurance proposal in 2011 and its projected cost in 2021 as calculated above.

**Table 5-5: Comparison of the Current Cost of Life Insurance Proposal with Projected One**

<b>Population Year</b>	<b>Premium Expenditure for the whole population (Cr.)</b>	<b>% of GDP</b>
2011	27484	0.31
2021	684960	0.4

Source: The data used for 2011 population is '2001 Census' and 2021 population is 'Population Projections For India And States 2001-2026, 2006' and the projected budget is taken from <http://stats.oecd.org/>

The mortality values have been taken same as for year 2011 calculations even for the projections of 2021. This is the latest mortality table available.

### 5.1.3 Universalization

In Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), the coverage is restricted to 18-50 years only and annually renewable. While this proposal envisages to cover the whole population of aged 18-59 till pension benefit doesn't get started.

## 5.2 Health Insurance

As discussed at length in the Health Insurance chapter of this study, the framework proposed is based on ascertaining the claims that can arise based on the probability of the claim and the average claim amount. Based on the framework we have worked out the state-wise budget needed to support the entire population of that state and presented in the table below.

### 5.2.1 Financial Feasibility

The cost of the health insurance proposal comes to around ₹ 115445 Cr. which is 1% of GDP and 6.9% of the total expenditure of Government of India. As per the 12th five-year plan, Government planned to increase public expenditure on health from the current level of 1.2 per cent of GDP to at least 2.5 per cent by the end of the Twelfth Plan, and to at least 3 per cent of GDP by 2022. So the proposal's expenditure seems still within the limits.

### Health Insurance Proposal Claim expenditure state-wise

We have calculated the expenditure for the health insurance proposal need to pay the claim for the people of 18 to 100 years of age.

**Table 5-6: Health insurance proposal claim expenditure**

State	Population	Total Health Expense in ₹ Cr.
India	658362805	1,15,662.69
Andaman & Nicobar Islands	242480	39.55
Andhra Pradesh	49045702	8,724.24
Arunachal Pradesh	729023	111.48
Assam	17030487	2,800.33

Bihar	48485740	8,423.75
Chandigarh	663906	105.86
Chhattisgarh	13769737	2,362.83
Dadra & Nagar Haveli	204237	29.26
Daman & Diu	164608	23.37
Goa	910859	105.86
Gujarat	34497721	5,913.29
Haryana	14006464	2,428.88
Himachal Pradesh	3997672	735.15
Jammu & Kashmir	6607165	1,119.13
Jharkhand	16678561	2,824.71
Karnataka	35910215	6,340.10
Kerala	19773024	3,945.47
Lakshadweep	39187	6.8
Madhya Pradesh	38070713	6,561.83
Maharashtra	64748245	11,639.54
Manipur	1614468	267.56
Meghalaya	1442045	221.73
Mizoram	605651	98
Nagaland	1053997	163.52
Nct Of Delhi	10086616	1,638.44
Odisha	23457493	4,226.98
Puducherry	768115	137.82
Punjab	16096238	2,926.64
Rajasthan	35029919	5,968.70
Sikkim	362817	58.41
Tamil Nadu	43908716	8,044.40
Tripura	2154750	365.4
Uttar Pradesh	97415590	16,803.19
Uttarakhand	5368765	948.31
West Bengal	53421879	9,271.09

**TABLE 5-7: Health Insurance proposal's cost as a percent of government figures.**

% of Total Expenditure of all the states of India (2014-15)	6.94
% of GDP of India (2015).	1.02

Source: Based on the figure obtained and presented above

As per the 12th five-year plan, Government planned to increase public expenditure on health from the current level of 1.2 per cent of GDP to at least 2.5 per cent by the end of the Twelfth Plan, and to at least 3 per cent of GDP by 2022.

### **5.2.2 Sustainability**

The article (Ahuja.2016) related to the lessons learned from Thailand's universal health social security scheme reflects that to make any social security scheme successful – the provider of the service and the funding agency has to be different and that will help in making it sustainable. This is one of the characteristics of the proposal we have presented in our study with respect to all the schemes.

In addition, our health insurance related proposal is based on actuals. It considers the average amount of claims per person in age group needed every year. That is the average amount of claim per capita. If the group of insured persons is large enough, according to the law of large numbers, the expected value can be estimated as the average per capita claim. In addition to the average claim amount it takes in the average claim probability of that age to calculate the health insurance budget for the proposal. Presented below is the comparison of cost of Health Insurance proposal in 2011 and its projected cost in 2021.

For financial sustainability in future, we have calculated the projected cost of the proposed expenditure for year 2021.

#### **Assumptions, Methodology and Data Sources for projections**

**Assumptions:** The claims probability has been considered same as in proposed Health Insurance

**Methodology:** For projected calculation of health insurance, the average claim amount of every age has been multiplied by projected inflation of 2021 and considering the projected population of 2021, aggregated to find out the overall budget needed.

**Data Sources:** The 2021 projected population is taken from the report (Population projections for India and states 2001-2026, 2006.). This report was prepared by the



Technical group on Population projections constituted by the National Commission on Population, May 2006.

Inflation rates represents the real increase in cost. (In 2013, the consumer price index(CPI) replaced the wholesale price index (WPI) as a main measure of inflation) are taken from OECD ( <http://stats.oecd.org/> ).

Below is presented the budgetary requirement for the health insurance proposal, based on the framework provided earlier.

**Table 5-8: Projected Aggregate Budgetary requirement (Male and Female) for 2021 for the health proposal**

Age	Claim Probability	Average claim amount (Male) considering inflation	Average claim amount (Female) considering inflation	Total Budget (Male) in ₹ Cr.	Total Budget (Female) in ₹ Cr.	Total Budget (Male + Female) in ₹ Cr.
18	0.0307	48451.2	39455.8	1,772.38	1,279.69	3,052.07
19	0.0315	48451.2	39455.8	1,815.54	1,310.85	3,126.39
20	0.0322	50597	42017.6	1,974.86	1,527.80	3,502.67
21	0.0329	50597	42017.6	2,018.17	1,561.31	3,579.48
22	0.0336	50597	42017.6	2,060.37	1,593.95	3,654.33
23	0.0343	50597	42017.6	2,101.53	1,625.80	3,727.33
24	0.0349	50597	42017.6	2,141.71	1,656.88	3,798.59
25	0.0356	56870.7	48890.9	2,526.50	1,989.36	4,515.86
26	0.0362	56870.7	48890.9	2,570.98	2,024.39	4,595.37
27	0.0368	56870.7	48890.9	2,614.54	2,058.69	4,673.23
28	0.0374	56870.7	48890.9	2,657.24	2,092.31	4,749.56
29	0.038	56870.7	48890.9	2,699.10	2,125.27	4,824.37
30	0.0386	59388.9	56694.5	2,795.75	2,391.48	5,187.23
31	0.0391	59388.9	56694.5	2,836.86	2,426.64	5,263.50
32	0.0397	59388.9	56694.5	2,877.24	2,461.19	5,338.43
33	0.0402	59388.9	56694.5	2,916.97	2,495.17	5,412.15
34	0.0408	59388.9	56694.5	2,955.98	2,528.54	5,484.52
35	0.0413	62570.3	61204	2,727.59	2,373.54	5,101.13

<b>Age</b>	<b>Claim Probability</b>	<b>Average claim amount (Male) considering inflation</b>	<b>Average claim amount (Female) considering inflation</b>	<b>Total Budget (Male) in ₹ Cr.</b>	<b>Total Budget (Female) in ₹ Cr.</b>	<b>Total Budget (Male + Female) in ₹ Cr.</b>
36	0.0418	62570.3	61204	2,762.00	2,403.48	5,165.48
37	0.0423	62570.3	61204	2,795.88	2,432.96	5,228.84
38	0.0428	62570.3	61204	2,829.29	2,462.04	5,291.34
39	0.0433	62570.3	61204	2,862.25	2,490.72	5,352.97
40	0.0438	70259.4	62032.5	2,750.15	2,280.76	5,030.92
41	0.0443	70259.4	62032.5	2,780.58	2,306.00	5,086.58
42	0.0448	70259.4	62032.5	2,810.58	2,330.87	5,141.45
43	0.0453	70259.4	62032.5	2,840.19	2,355.43	5,195.62
44	0.0457	70259.4	62032.5	2,869.43	2,379.68	5,249.11
45	0.0462	73484.4	62922.8	2,644.44	2,272.21	4,916.64
46	0.0466	73484.4	62922.8	2,670.48	2,294.59	4,965.07
47	0.0471	73484.4	62922.8	2,696.19	2,316.68	5,012.87
48	0.0475	73484.4	62922.8	2,721.61	2,338.52	5,060.12
49	0.048	73484.4	62922.8	2,746.68	2,360.06	5,106.75
50	0.0484	75670.2	65006.8	2,537.82	2,221.04	4,758.86
51	0.0496	75670.2	65006.8	2,601.84	2,277.07	4,878.91
52	0.0502	75670.2	65006.8	2,630.44	2,302.10	4,932.55
53	0.0507	75670.2	65006.8	2,659.05	2,327.14	4,986.19
54	0.0513	75670.2	65006.8	2,687.65	2,352.17	5,039.83
55	0.0518	77516.1	63487.9	2,438.38	1,981.05	4,419.43
56	0.0524	77516.1	63487.9	2,464.06	2,001.91	4,465.97
57	0.0529	77516.1	63487.9	2,489.74	2,022.77	4,512.51
58	0.0535	77516.1	63487.9	2,515.42	2,043.63	4,559.05
59	0.054	77516.1	63487.9	2,541.09	2,064.50	4,605.59
60	0.0545	77881.3	75768.3	2,094.09	1,961.23	4,055.31
61	0.0551	77881.3	75768.3	2,115.03	1,980.85	4,095.88
62	0.0556	77881.3	75768.3	2,135.98	2,000.47	4,136.45
63	0.0562	77881.3	75768.3	2,156.93	2,020.09	4,177.02
64	0.0567	77881.3	75768.3	2,177.88	2,039.71	4,217.59
65	0.0573	81516.9	79932.6	1,719.95	1,624.81	3,344.75

<b>Age</b>	<b>Claim Probability</b>	<b>Average claim amount (Male) considering inflation</b>	<b>Average claim amount (Female) considering inflation</b>	<b>Total Budget (Male) in ₹ Cr.</b>	<b>Total Budget (Female) in ₹ Cr.</b>	<b>Total Budget (Male + Female) in ₹ Cr.</b>
66	0.0578	81516.9	79932.6	1,736.33	1,640.29	3,376.62
67	0.0584	81516.9	79932.6	1,752.72	1,655.77	3,408.49
68	0.0589	81516.9	79932.6	1,769.11	1,671.25	3,440.35
69	0.0595	81516.9	79932.6	1,785.49	1,686.73	3,472.22
70	0.06	84847.3	85732.1	1,278.64	1,301.85	2,580.48
71	0.0605	84847.3	85732.1	1,290.26	1,313.69	2,603.95
72	0.0611	84847.3	85732.1	1,301.89	1,325.53	2,627.42
73	0.0616	84847.3	85732.1	1,313.52	1,337.37	2,650.89
74	0.0622	84847.3	85732.1	1,325.15	1,349.20	2,674.35
75	0.0627	94680.4	88506.5	934.48	995.47	1,929.95
76	0.0633	94680.4	88506.5	942.61	1,004.13	1,946.73
77	0.0638	94680.4	88506.5	950.74	1,012.78	1,963.52
78	0.0644	94680.4	88506.5	958.87	1,021.44	1,980.31
79	0.0649	94680.4	88506.5	966.99	1,030.10	1,997.10
80	0.0655	93988.1	113709	873.86	1,422.82	2,296.69
81	0.066	93988.1	113709	881.15	1,434.69	2,315.84
82	0.0665	93988.1	113709	888.43	1,446.55	2,334.98
83	0.0671	93988.1	113709	895.72	1,458.41	2,354.13
84	0.0676	93988.1	113709	903	1,470.27	2,373.27
85	0.0682	99368	72298	962.39	942.36	1,904.76
86	0.0687	99368	72298	970.09	949.91	1,920.00
87	0.0693	99368	72298	977.8	957.45	1,935.24
88	0.0698	99368	72298	985.5	964.99	1,950.49
89	0.0704	99368	72298	993.2	972.53	1,965.73
90	0.0709	99368	72298	1,000.90	980.07	1,980.97
91	0.0715	99368	72298	1,008.60	987.61	1,996.22
92	0.072	99368	72298	1,016.30	995.15	2,011.46
93	0.0726	99368	72298	1,024.01	1,002.70	2,026.70
94	0.0731	99368	72298	1,031.71	1,010.24	2,041.94
95	0.0736	99368	72298	1,039.41	1,017.78	2,057.19

Age	Claim Probability	Average claim amount (Male) considering inflation	Average claim amount (Female) considering inflation	Total Budget (Male) in ₹ Cr.	Total Budget (Female) in ₹ Cr.	Total Budget (Male + Female) in ₹ Cr.
96	0.0742	99368	72298	1,047.11	1,025.32	2,072.43
97	0.0747	99368	72298	1,054.81	1,032.86	2,087.67
98	0.0753	99368	72298	1,062.51	1,040.40	2,102.92
99	0.0758	99368	72298	1,070.22	1,047.94	2,118.16
100	0.0764	99368	72298	1,077.92	1,055.48	2,133.40

Presented below is the comparison of cost of Life Insurance proposal in 2011 and its projected cost in 2021 as calculated above.

**Table 5-9 : Comparison of The Current Cost of Health Insurance Proposal with Projected One**

Population Year	Expenditure for all Male (in ₹ Cr.)	Expenditure for all Female	Total Aggregate Expenditure(P)=1+2 (in ₹ Cr.)	% of GDP
2011	61,534	54,129	115,663	1.3
2021	159,879	143,329	303,208	1.8

Source: The data used for 2011 population is '2001 Census' and 2021 population is 'Population Projections For India And States 2001-2026, 2006' and the projected budget is taken from <http://stats.oecd.org/>

### 5.2.3 Universalization

The health insurance proposal proposes to cover the whole population from 18-100 years of age irrespective of the occupational groups, social group or the gender they belong to. This way the prime objective of universalization can be achieved.

## 5.3 Old Age Pension

### 5.3.1 Financial Feasibility

The cost of the Pension scheme, proposed in our study, that can cover the people from 18-59 years of age, comes to around ₹ 225172 Cr. which is 2% of GDP and 13.5% of the total expenditure of Government of India. In case of United States of America (one of the countries we chose to benchmark against in this study) after World War II pension expenditures, now including Social Security payouts, began to accelerate and is expected to breach 7 percent GDP by 2020.

#### Old Age Pension proposal expenditure state-wise

We have calculated the state wise expenditure of the same to understand the burden state wise and assess the feasibility of each state.

**TABLE 5-10 : Old Age Pension Proposal Expenditure State-wise**

State	Population (age 60-100)	Pension Proposal Expense (in ₹ Cr.)
Andaman & Nicobar Islands	242480	84.19
Andhra Pradesh	49045702	16,888.03
Arunachal Pradesh	729023	242.27
Assam	17030487	5,796.10
Bihar	48485740	16,525.23
Chandigarh	663906	222.64
Chhattisgarh	13769737	4,714.01
Dadra & Nagar Haveli	204237	64.10
Daman & Diu	164608	49.89
Goa	910859	324.06
Gujarat	34497721	11,837.89
Haryana	14006464	4,687.92
Himachal Pradesh	3997672	1,389.55
Jammu & Kashmir	6607165	2,235.45
Jharkhand	16678561	5,674.30
Karnataka	35910215	12,302.36
Kerala	19773024	7,172.60
Lakshadweep	39187	13.76
Madhya Pradesh	38070713	12,904.05
Maharashtra	64748245	22,153.09
Manipur	1614468	543.41

State	Population (age 60-100)	Pension Proposal Expense (in ₹ Cr.)
Meghalaya	1442045	467.31
Mizoram	605651	200.35
Nagaland	1053997	344.27
NCT Of Delhi	10086616	3,413.83
Odisha	23457493	8,155.32
Puducherry	768115	272.84
Punjab	16096238	5,504.73
Rajasthan	35029919	11,747.24
Sikkim	362817	119.19
Tamil Nadu	43908716	15,573.93
Tripura	2154750	736.29
Uttar Pradesh	97415590	32,455.76
Uttarakhand	5368765	1,800.27
West Bengal	53421879	18,555.86
India	658362805	2,25,172.09

If we compare this with what's spent in United States of America (USA), one of the prominent country, implemented the social security on a larger basis, the figure seems within the reasonable limits. Look at the table compiled and presented below for the corresponding percentage from US spending on pension.

**TABLE 5-11: Pension Spending in United States of America (USA) from 1990-2015**

Year	Pension expenditures (now including Social Security payouts) in USA as a percent of GDP
1953	1
1958	2
1971	3
1974	4
1980	5
1990	5.1
2000	5.3
2009	6
2015	6.8

Source:(Chantrill) Kandil, M. (2001). Asymmetry in the effects of US government spending shocks: Evidence and implications. *The Quarterly Review of Economics and Finance*, 41(2), 137-165.

### 5.3.2 Sustainability

In case of Atal Pension Yojana(APY), policy enrollment is available up to age 40years while as obvious that the need of protection and support increases with age and hence the people above this age group require more protection as well as have the capacity to contribute. We have proposed the enrollment age up to 59 years with increased premium in our proposal.

For financial sustainability in future, we have calculated the projected cost of the proposed expenditure for year 2021.

#### Assumptions, Methodology and Data Sources for projections

**Assumptions** Inflation Rate in India averaged 6 percent from 2012 until 2018.

**Methodology** For projected calculation for Old age pension the budget of the pension amount with the parameters of 2011 has been multiplied by projected inflation of 2021 and considering the projected population of 2021, to find out the overall budget needed.

**Data Sources** The 2021 projected Population is taken from Population projections for india and states 2001-2026, 2006. Report of the Technical group on Population projections constituted by the National Commission on Population, May 2006.

Inflation rates are taken from the <http://stats.oecd.org/> .

**TABLE 5-12 : Projected Aggregate Budgetary Requirement Old age Pension for 2021 for the health proposal**

Age	Monthly pension guaranteed	Expenditure of Government in ₹ Cr.
18	1817	9,360.31
19	1817	9,360.31
20	1817	11,615.34
21	1817	11,615.34
22	1817	11,615.34
23	1817	11,615.34
24	1817	11,615.34

25	1817	18,048.57
26	1817	18,048.57
27	1817	18,048.57
28	1817	18,048.57
29	1817	18,048.57
30	1817	26,636.42
31	1817	26,636.42
32	1817	26,636.42
33	1817	26,636.42
34	1817	26,636.42
35	1817	32,975.94
36	1817	32,975.94
37	1817	32,975.94
38	1817	32,975.94
39	1817	32,975.94
40	1817	28,634.51
41	1817	28,634.51
42	1817	28,634.51
43	1817	28,634.51
44	1817	28,634.51
45	1817	25,806.24
46	1817	25,806.24
47	1817	25,806.24
48	1817	25,806.24
49	1817	25,806.24
50	1817	23,122.15
51	1817	23,122.15
52	1817	23,122.15
53	1817	23,122.15
54	1817	23,122.15
55	1817	19,993.63
56	1817	15,994.90
57	1817	11,996.18
58	1817	7,997.45
59	1817	3,998.73



Presented below is the comparison of cost of Old age pension proposal in 2011 and its projected cost in 2021.

**TABLE 5-13: Comparison of the current cost of Old age pension proposal with projected one**

<b>Population Year</b>	<b>Premium Expenditure for the whole population (₹ Cr.)</b>	<b>% of GDP</b>
2011	225172	2.54
2021	912897	5.42

Source: The data used for 2011 population is '2001 Census' and 2021 population is 'Population Projections For India And States 2001-2026, 2006' and the projected budget is taken from <http://stats.oecd.org/>

### **5.3.3 Universalization**

The people above forty years of age are not included in Atal Pension Yojana (APY); those are more vulnerable and hence need the support, most. Our proposal extends the coverage to 59 years of age.

## **5.4 Maternity Benefit**

The expenditure to be incurred on the maternity benefit proposal is presented in the table below.

### **5.4.1 Financially Feasibility**

The cost of the Maternity Benefit, proposed in our study that can cover the female from 18-45 years of age, for birth of two children comes to around ₹ 44822 Cr. which is 0.76% of GDP and 2.6% of the total expenditure of Government of India.

The International Labor Organization (ILO) paper on maternity benefit cost concludes that looking at a sample of 57 low- and lower middle-income countries and show that introducing a basic universal maternity cash benefit would require, on average, 0.41 per cent of national gross domestic product (GDP). (Social protection for maternity: Key policy trends and statistics.)

So, considering the above the proposal cost which comes to around 0.76% of GDP seems to be within a reasonable range.

### **Maternity proposal expenditure state-wise**

To be able to adjudge and assess the granular impact of the maternity proposal we have calculated the state wise expenditure of the same.

**TABLE 5-14: Maternity Proposal's expenditure state-wise**

<b>State Name</b>	<b>Population (age 15-45)</b>	<b>Total cost ₹ Cr.</b>
Andaman & Nicobar	90867	15.32
Andhra Pradesh	19937905	3,428.26
Arunachal Pradesh	296346	53.27
Assam	6960629	1,304.01
Bihar	19333773	3,675.82
Chandigarh	240453	29.34
Chhattisgarh	5535301	994.77
Dadra & Nagar Haveli	71229	11.44
Daman & Diu	47872	6.79
Goa	339299	51.05
Gujarat	13104870	2,150.24
Haryana	5417723	923.52
Himachal Pradesh	1561890	299.52
Jammu & Kashmir	2555351	451.5
Jharkhand	6653043	1,190.81
Karnataka	14288127	2,390.29
Kerala	7624041	1,231.00
Lakshadweep	14490	1.99
Madhya Pradesh	14900427	2,617.57
Maharashtra	24999946	4,044.85
Manipur	654653	115.04
Meghalaya	605154	109.6
Mizoram	243146	37.73
Nagaland	431623	75.52
Nct Of Delhi	3850715	469.57
Odisha	9317513	1,728.60

State Name	Population (age 15-45)	Total cost ₹ Cr.
Puducherry	309825	44.98
Punjab	6172255	1,044.76
Rajasthan	13846747	2,464.97
Sikkim	139087	24.68
Tamil Nadu	17234161	2,763.46
Tripura	854641	151.87
Uttar Pradesh	38377264	6,913.93
Uttarakhand	2168640	378.67
West Bengal	20918341	3,627.97
India	259097347	44,822.69

Source: Based on the calculations by the author.

**TABLE 5-15: Maternity proposal's cost as a percent of government's Total Expenditure and GDP of India.**

% of Total Expenditure of all the states of India (2014-15)	2.57
% of GDP of India (2015)	0.39

Source: Based on the Results obtained and presented above by the author

#### 5.4.2 Sustainability

As the International Labor Organization (ILO) report says, "Without cash and health benefits, many women could not afford to take maternity leave, or might be forced to return to work before their health allowed". A 1996 report to the United States Congress on family and medical leave policies found that 100 per cent of the women eligible for leave who did not take it said that they could not afford to. (Norton et al., 2001)

So, a cash benefit is a must for any maternity benefit scheme which corroborates the fact manifests out of our proposal and this very fact makes the proposed scheme sustainable.

For financial sustainability in future, we have calculated the projected cost of the proposed expenditure for year 2021.

## Assumptions, Methodology and Data Sources for projections

**Assumptions** Inflation Rate in India averaged 6 percent from 2012 until 2018.

**Methodology** For projected calculation for maternity benefit the amount has been multiplied by projected inflation of 2021 and considered the projected population of 2021, to find out the overall budget needed.

**Data Sources** The 2021 projected Population is taken from Population projections for india and states 2001-2026, 2006. Report of the Technical group on Population projections constituted by the National Commission on Population, May 2006.

Inflation rates are taken from the <http://stats.oecd.org/> .

**TABLE 5-16: Projected Aggregate Expenditure for Maternity Proposal for 2021**

Age	Total projected female population in 2021	Total projected Expenditure (in ₹ Cr.) considering the inflation.
18	10557800	3,836.49
19	10557800	3,836.49
20	11294000	4,104.01
21	11294000	4,104.01
22	11294000	4,104.01
23	11294000	4,104.01
24	11294000	4,104.01
25	11444200	4,158.59
26	11444200	4,158.59
27	11444200	4,158.59
28	11444200	4,158.59
29	11444200	4,158.59
30	10939000	3,975.01
31	10939000	3,975.01
32	10939000	3,975.01
33	10939000	3,975.01
34	10939000	3,975.01
35	9389800	3,412.06

Age	Total projected female population in 2021	Total projected Expenditure (in ₹ Cr.) considering the inflation.
36	9389800	3,412.06
37	9389800	3,412.06
38	9389800	3,412.06
39	9389800	3,412.06
40	8388400	3,048.17
41	8388400	3,048.17
42	8388400	3,048.17
43	8388400	3,048.17
44	8388400	3,048.17
45	7817600	2,840.76
		1,04,002.94

Presented below is the comparison of cost of Maternity benefit proposal in 2011 and its projected cost in 2021 as calculated above.

**TABLE 5-17 : Comparison of the current cost of Maternity benefit proposal with projected one**

Population Year	Premium Expenditure for the whole population (in ₹ Cr.)	% of GDP
2011	44822	0.39
2021	104003	0.61

Source: The data used for 2011 population is '2001 Census' and 2021 population is 'Population Projections For India And States 2001-2026, 2006' and the projected budget is taken from <http://stats.oecd.org/>

It was not possible to get the projected population of 2021 with the rural and urban classification so we have taken the current urban benefit under maternity benefit ie, Rs 2000 and multiplied the same with the projected inflation of 2021. This way the total budget arrived at may be higher side though it may also suit the situation if there is more migration from rural to urban area in the country.

### **5.4.3 Universalization**

The proposal covers all the women from 18-45 years of age which is a reasonably large fertile female population. In addition, the proposal doesn't differentiate between the recipient of the maternity benefit based on any social group, employment status or the area of residence, this is going to be the most universal in nature.

## **5.5 Comprehensive Social Security**

Comprehensive social security i.e. a social security program that comprises of all the schemes like Life insurance, Health insurance, Old age pension and Maternity benefit so as to give a holistic approach towards social security. So, in addition to presenting the individual schemes we also present the comprehensive view of the proposals to assess and evaluate its financial feasibility.

The plan outlay for 2015-16 (*Budget 2015-2016*) reflects a major compositional shift in the expenditure estimates. These changes are because of long standing demand of the States for greater devolution and greater flexibility in design of Centrally Sponsored Schemes. In the spirit of "Cooperative federalism", Government has accepted the recommendation of the Fourteenth Finance Commission (FFC) and will be devolving 42% of the divisible pool of Union Taxes. This will be much higher than the 32% devolved to States in 2014-15 as per the Thirteenth Finance Commission Award. So, the states may also be in the position to bear, at least in part, the cost of financing the social security schemes.

We are presenting a different angle as an alternate to aid in the feasibility of the proposal -the expenses of a state can be equally shared between state and center. We have worked out the calculations and presented as a percent of the total budget (capital + revenue) of the state and Centre. This could be one of the ways to implement the universal scheme and have the shared responsibility between center and state and have the onus of its success divided between them. This is presented in the table in subsequent section in this chapter.

One more alternative way of implementing the comprehensive social security is by considering the state's total expenditure budget combined with the center's total expenditure budget for every state. That way the individual state's requirement can be

fulfilled with the pool from center combined instead of the center's contribution equal to the state's contribution for every state. The idea is to have a flexible amount from the center for the state and hence considering the total budget available to every state. An illustration of the proposal is presented in the table in the subsequent section of this chapter.

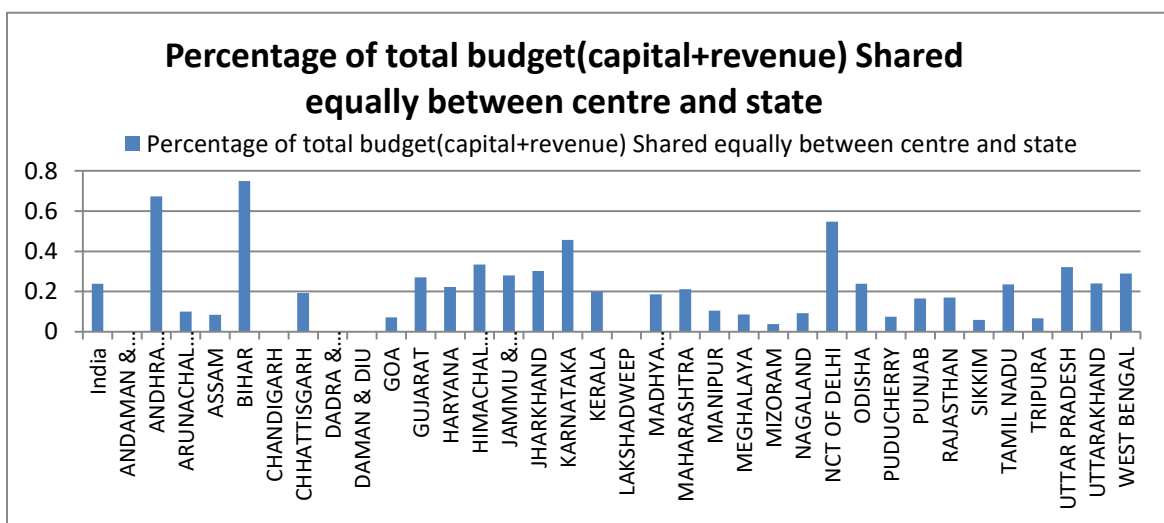
Providing the holistic view of the expenditure encompassing all the proposals ie. Life, Health, Old age Pension and Maternity insurance, presented the tables below with the details.

Aggregate of Comprehensive Social Security cost = Cost of Life Insurance + Cost of Health Insurance + Cost of Pension Benefits + Cost of Maternity Benefits

**TABLE 5-18: Comprehensive Social Security Proposal Expenditure as a percentage of Revenue Expenditure**

State	Revenue expenditure of the state (2014-15) in ₹ Cr.	Comprehensive Social Security (Life + Health + Pension + Maternity) as a % of State revenue expenditure	Comprehensive Social Security (Life + Health + Pension + Maternity) as a % of Central and state revenue expenditure
India	14,66,992	30.94	14.05
Andaman & Nicobar	2,903	5.63	0.01
Andhra Pradesh	98,142	34.8	1.06
Arunachal Pradesh	7,179	6.74	0.01
Assam	48,631	24.2	0.36
Bihar	91,765	36.94	1.05
Chandigarh	2,743	15.03	0.01
Chhattisgarh	46,191	20.68	0.3
Dadra & Nagar H	506	24.22	0
Daman & Diu	379	24.24	0
Goa	8,099	7.04	0.02
Gujarat	96,217	24.28	0.72
Haryana	52,703	17.94	0.29
Himachal Pradesh	19,784	14.55	0.09
Jammu & Kashmir	32,461	13.81	0.14
Jharkhand	39,488	29	0.35
Karnataka	1,10,757	22.28	0.76
Kerala	71,974	20.13	0.45

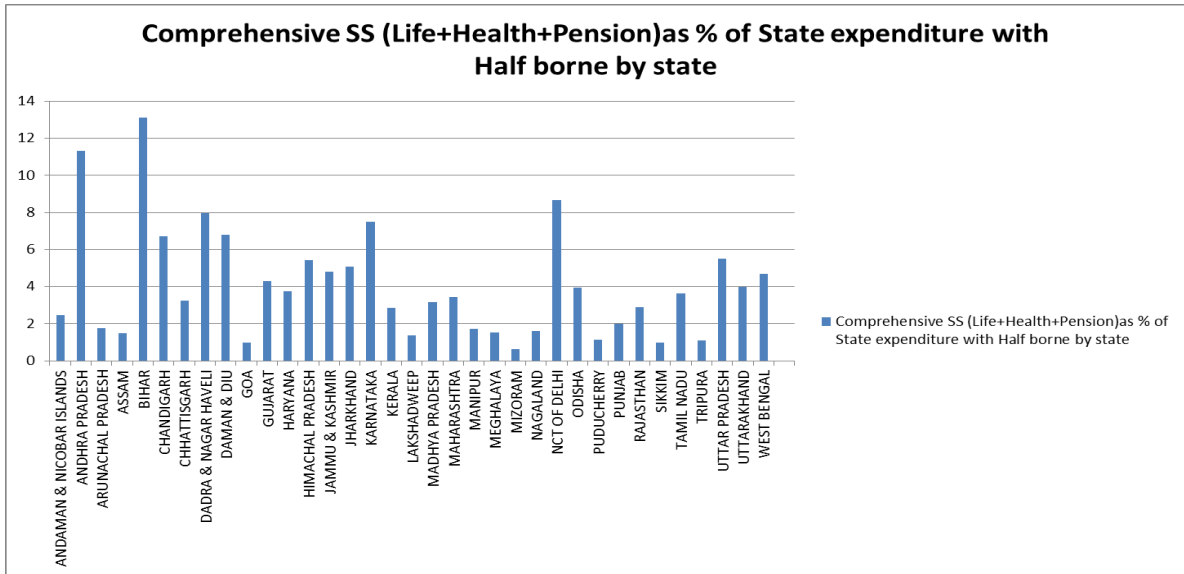
State	Revenue expenditure of the state (2014-15) in ₹ Cr.	Comprehensive Social Security (Life + Health + Pension + Maternity) as a % of State revenue expenditure	Comprehensive Social Security (Life + Health + Pension + Maternity) as a % of Central and state revenue expenditure
Lakshadweep	784	3.35	0
Madhya Pradesh	99,014	26.3	0.81
Maharashtra	1,84,423	23.99	1.37
Manipur	7,628	14.43	0.03
Meghalaya	9,903	9.66	0.03
Mizoram	5,764	6.88	0.01
Nagaland	7,911	8.77	0.02
Nct Of Delhi	27,541	23.1	0.2
Odisha	62,881	26.54	0.52
Puducherry	5,183	10.25	0.02
Punjab	49,146	16.88	0.26
Rajasthan	1,05,387	22.64	0.74
Sikkim	4,839	4.96	0.01
Tamil Nadu	1,27,100	24.28	0.96
Tripura	8,117	18.28	0.05
Uttar Pradesh	1,97,425	33.66	2.06
Uttarakhand	23,792	15.54	0.11
West Bengal	1,05,978	34.95	1.15





**TABLE 5-19: Comprehensive Social Security Proposal Expenditure as a percentage of Total(Capital + Revenue) Expenditure with center's share equal to the state's share**

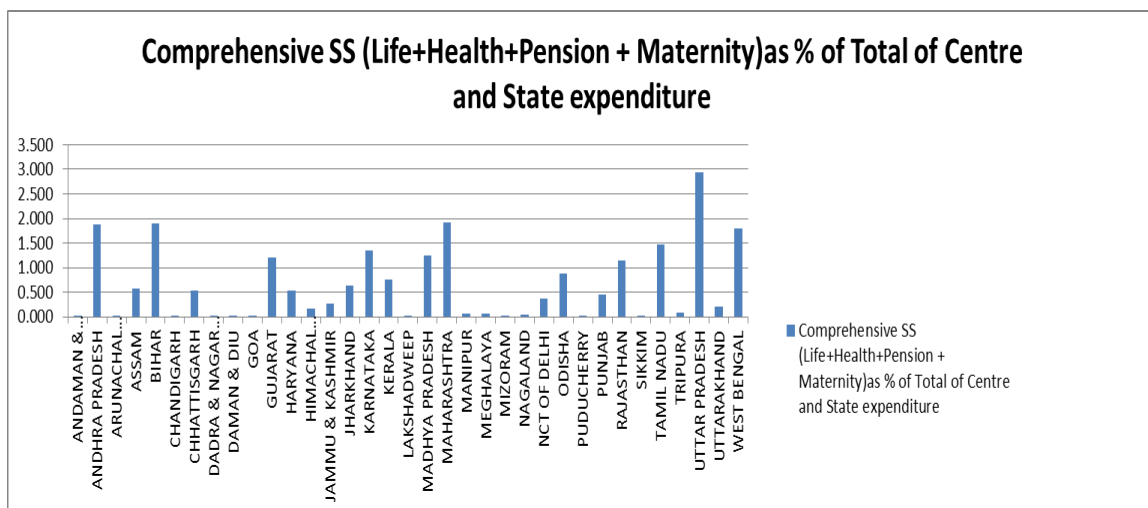
<b>State</b>	<b>Total expenditure of the state (2014-15) in ₹ Cr.</b>	<b>Comprehensive Social Security (Life + Health + Pension + Maternity) as % of (Center + State) expenditure shared equally</b>
Andaman & Nicobar	3,310.65	2.47
Andhra Pradesh	1,51,026.74	11.31
Arunachal Pradesh	13,658.87	1.77
Assam	3,98,326.89	1.48
Bihar	1,29,030.13	13.13
Chandigarh	3,062.95	6.73
Chhattisgarh	1,47,956.12	3.23
Dadra & Nagar Haveli	770.81	7.95
Daman & Diu	675.3	6.8
Goa	29,130.08	0.98
Gujarat	2,71,895.88	4.3
Haryana	1,25,779.21	3.76
Himachal Pradesh	26,591.04	5.41
Jammu & Kashmir	46,720.93	4.8
Jharkhand	1,12,564.44	5.09
Karnataka	1,64,549.08	7.5
Kerala	2,52,417.80	2.87
Lakshadweep	954.1	1.37
Madhya Pradesh	4,11,762.24	3.16
Maharashtra	6,44,399.10	3.43
Manipur	32,054.84	1.72
Meghalaya	31,390.90	1.52
Mizoram	31,996.74	0.62
Nagaland	21,406.17	1.62
Nct Of Delhi	36,766.00	8.65
Odisha	2,11,488.22	3.95
Puducherry	23,059.76	1.15
Punjab	2,06,772.03	2.01
Rajasthan	4,12,784.67	2.89
Sikkim	12,265.18	0.98
Tamil Nadu	4,24,510.52	3.63
Tripura	66,661.12	1.11
Uttar Pradesh	6,04,499.33	5.5
Uttarakhand	46,216.84	4
West Bengal	3,95,625.47	4.68



**TABLE 5-20: Comprehensive Social Security Proposal Expenditure as a percentage of Total (Capital Revenue) Expenditure, with center’s budget added in every state’s budget**

State	Comprehensive SS (Life + Health + Pension + Maternity) as % of Total of Centre and State expenditure
Andaman & Nicobar	0.01
Andhra Pradesh	1.882
Arunachal Pradesh	0.029
Assam	0.571
Bihar	1.891
Chandigarh	0.025
Chhattisgarh	0.527
Dadra & Nagar Haveli	0.007
Daman & Diu	0.006
Goa	0.034
Gujarat	1.207
Haryana	0.528
Himachal Pradesh	0.17
Jammu & Kashmir	0.262
Jharkhand	0.645
Karnataka	1.35
Kerala	0.756
Lakshadweep	0.002
Madhya Pradesh	1.255
Maharashtra	1.917

State	Comprehensive SS (Life + Health + Pension + Maternity) as % of Total of Centre and State expenditure
Manipur	0.065
Meghalaya	0.056
Mizoram	0.023
Nagaland	0.041
Nct Of Delhi	0.374
Odisha	0.89
Puducherry	0.032
Punjab	0.443
Rajasthan	1.149
Sikkim	0.014
Tamil Nadu	1.478
Tripura	0.086
Uttar Pradesh	2.93
Uttarakhand	0.216
West Bengal	1.798



As following the objective, we have identified the issue with social security scheme currently existing in India, primarily promoted by the government. As we have mentioned that we would be considering Life Insurance, Health Insurance, Pension Benefit and Maternity Benefit. So, in each of these areas, based on the requirement triggered by the identified gaps, we have come up with different proposal, changes with the intension of providing the comprehensive social security to the whole population. This will have a significant impact on the lives of the poor as well.

This way we propose to make the scheme universal which was most important requirement and the prime contributory to the success of any social security seeking country.

We have not limited our self at just coming up with analytical framework of those proposal, but we have also compared the results with the nations we have identified for benchmarking viz. Brazil, China, Germany, United Kingdom, United States. One of the parameter in the comparison is the cost of the social security scheme as percentage of the Gross Domestic Product (GDP) of countries.

Europe, spend over 25% of its GDP (for the year 2005) on social security of which one-third is on healthcare. The global average is 8.39% of GDP (2.67% on healthcare) and ranges from 4.05% (0.95% healthcare) in India to 12-13% in South Africa, Brazil and Russia (3-4% healthcare) and 29.40% (6.8% healthcare) in Sweden.(Duggal, 2013)

Many developed economies already expend a sizable share of their GDP on these programs. For example, public expenditures on pensions and health care currently consume about 13% of GDP in the U.S. and more than 20% in France. For these economies, the pressing question is whether population aging will push public pensions and health care programs to consume ever-rising proportions of national income.

**TABLE 5-21: Comparison of Public social protection expenditure as percentage of GDP**

<b>Country</b>	<b>Total Public Social Protection Expenditure &amp; Health Expenditure (% of GDP)</b>
Brazil	21.29(2010)
China	6.83(2010)
Germany	25.89(2011)
India	2.39(2012)
United Kingdom	23.84(2010)
United States	19.92(2010)

Source:(ILO Social Security Expenditures Database.)

The above table shows that India’s existing expenditure on social security is lowest compared to the other countries taken up.

The proposal has the advantage of universalization of the scheme and increase in the coverage. Though it escalates the cost to a limited extent but remains the lowest as compared to other countries.

Once the universalization of comprehensive social security scheme accepted and implemented, there is further scope for research to expand and include the social security benefits as identified apart from this study.

Through the empirical cost calculation, we have measured the fiscal capacity of the Government for these schemes and presented in the table below.

**TABLE 5-22: Proposal cost as a percent of GDP of India (2015)**

Life insurance	0.24
Health insurance	1.01
Pension Benefit	1.98
Maternity Benefit	0.75
Comprehensive Social Security	3.99

Source: Based on the figure obtained and presented above and the Total Expenditure of India in 2014-15 and GDP of 2015.

Comprehensive social security proposes the coverage for all age and for all the risks in lifetime of any individual.

Also presented below is the table presenting the projected cost in the year 2021 based on the projected GDP and population. This is done to get an idea as to how the proposal suits in future.

**TABLE 5-23: Projected cost as a percent of projected GDP of India (2021)**

Life insurance	0.4
Health insurance	1.8
Pension Benefit	5.42
Maternity Benefit	0.61
Comprehensive Social Security	8.23

The feasibility of comprehensive social security – the primary objective of this study, has been worked upon using various parameters with respect to the different schemes i.e. Life Insurance, Health Insurance, Old Age Pension and Maternity benefit. The same is presented below.

With respect to the proposed schemes in Life, Health, Pension and Maternity the eligible age ranges as presented in the table next.

**TABLE 5-24 : Age groups covered under the proposals**

<b>Proposal Scheme</b>	<b>Universalization (eligible age ranges)</b>
Life Insurance	18-59 years of age
Health Insurance	18-100 years of age
Pension Benefit	18-59 years of age
Maternity Benefit	18-45 years of age

This discussed the financial feasibility and fiscal sustainability of the proposed scheme.

The present chapter summarizes the thesis and presents the limitations, scope for further research and concludes the study.

## **Chapter 6**

### **Financial Feasibility and Sustainability of Universal Comprehensive Social Security in India**

The primary objective of this study is to propose the comprehensive universal social security programme for India and to evaluate its financial feasibility and fiscal sustainability for India. The definition of social security for this purpose has been benchmarked upon the concept of social security put forward by ILO and the four pillars of social security recommended by the Arjun Sengupta Committee report (2007) to include Life insurance, Health insurance, Pensions, and Maternity benefit. The chapter wise summary of the study and its findings are presented next.

#### **6.1 Chapter wise Summary**

Chapter 1 provided background, objectives, definition of social security, outline of the study and data and methodology. The chapter explored various definitions of social security and arrived at the definition by ILO. The concept of social security by National Commission for Enterprises in the Unorganized sector (Arjun Sengupta report (2007) of the term Social security is applied. The chapter also discussed the evolution and chronological historical background.

Chapter 2 provided the literature review. The definition of universalization in the literature, the desirability of universalization in the extant literature and the recommendations of various committees. The literature review focuses on universalization from the perspective of public policy. These references have helped in various aspects of our research for example understanding the components of social security, benefits and gaps of such schemes in India and the provisions of social security have some justification from the viewpoint of democracy.

Chapter 3 provided the experiences of existing social security programmes of selected five countries and India. The review of relevant existing security schemes in India with respect to Life Insurance, Health Insurance, Old Age Pension and Maternity Benefit and critically evaluates the schemes and identifies the gaps thereof. In India there are several social

security schemes of different kinds exist, covering different groups of people mainly workers in the organized sector. These schemes provide insurance against different kinds of risks mainly related to employment. These schemes have been framed piecemeal. They are overlapping in some respects while there are large gaps in their coverage. They need to be integrated.

Chapter 4 presents the comprehensive universal social security product modeled by the researcher. This chapter explains the assumptions, design, premium and cost calculation of each of the component of this product viz. life insurance, health insurance, pensions and maternity benefit.

Chapter 5 discussed the financial feasibility and fiscal sustainability of the proposed scheme. Sustainability of comprehensive social security can be determined from its financial analysis which is decided by number of beneficiaries and level of benefits. The scope of study is limited to its financial feasibility and the issues in regulation and administration are beyond its scope.

Chapter 6 The present chapter summarizes the thesis and presents the limitations, scope for further research and concludes the study.

## **6.2 Findings of the Study**

The literature shows that publicly funded universal social security schemes are one of the powerful policies to alleviate poverty in developing countries. Various committee reports also support this argument and recommend universal comprehensive provision of affordable social security cover for the entire population of the country.

The study models the comprehensive social security product for India and estimates its costs for the exchequer.

1. The life insurance element of the proposed product costs 0.48% to the exchequer.
2. The health insurance element of the product costs 2.00 % to the exchequer.
3. The pension's component costs 3.91% to the exchequer.
4. The maternity benefit component costs 0.78 % to the exchequer.



5. The comprehensive product thus costs 7.16 % of the Union Government Budget at current level of population.
6. The sustainability of comprehensive social security will depend on its financial affordability. The expenditure on Social security is expressed as percentage either of GDP or of Government expenditure, which is 410899 cr. that is 4% of GDP and 27.28% of total expenditure.
7. The expenditure on social security can also be shared by the states. These estimates are also calculated in the study based on the state wise population under certain assumptions.
8. The data shows that the public expenditure on social security is less in India as compared to the other countries. Though the public spending will be higher than the current level of public spending on social security in India, as compared to the other countries this burden on the exchequer seems reasonable and justifiable.
9. In India the level of poverty and size of vulnerable population calls for the implementation of comprehensive social security program. The improved tax effort, tax efficiency and fiscal reforms like GST would make the cost of this product are not only feasible but also desirable as it will channel the tax revenue in proper direction.

### **6.3 Limitations of the Study**

1. The proposed schemes in the study are helpful only for the population of 18 years and above.
2. For calculation, population distribution data is taken from Census 2011.
3. Life Insurance proposal is based on mortality tables which directly affects the calculations. In this calculation Mortality tables (2006-07) has been used which can vary based on actuals.

4. The specific present value tables of 6% rate of Interest have been used from actuarial tables for calculating the fund value for the insurance proposal schemes.
5. The basis of old age pension scheme is the number of years, the accumulated amount is, sufficient to pay the premium has been kept constant.
6. Average claim amount and average claim probability may lead to some variation when compare with the actuals.
7. With respect to budget requirement to implement the proposals in our study, we have excluded the administrative and miscellaneous expenses.

#### **6.4 Scope for Further Research**

The sustainability of publicly financed social security especially pensions is much debated issue in developed countries of Western Europe and USA. The region wise, age group wise and gender wise population projections can be used for the estimate of future costs, if the data is available.

The administrative and implementation expenses can be estimated with the finalization of operational framework of the scheme.

#### **6.5 Concluding Remarks**

Is social security good or bad for the economy? Various economic studies argue about how the system affects saving, labor supply, and income distribution. The issue of publicly financed comprehensive social security is not free from debate. Not every economist agrees to the utopian idea of state providing for the social security needs of the population. The literature provides little evidence to support or refute assertions that social security has reduced saving, but they do indicate that it has contributed to the trend toward early retirement. Some studies have shown that the social security has played a considerable role in bringing about equality (Aaron, 2010).

The economic arguments for and against social security are:

##### **The arguments by the “Against” social security -camp:**

Adverse effect on savings Although there are debates on the adverse effect of social security on incentive to save, the empirical evidence is not found due to the shortcomings of available data. As a result, the effects of social security on saving and labor supply are

difficult to measure, and how such a complex system influences behavior is not at all well understood.

The social security provisions would be ultimately financed by taxes and the effect of these taxes on income distributions, labour supply, are non-specified.

Adverse effect on production due to disincentive to work, and early retirement

Macroeconomic effects on income distribution: In India the inter- sectoral disparities in wages will complicate the problem of redistribution of income. Given the narrow tax base low level of employment in the organized sector, the per capita burden of social security will be high on the working population.

Intergenerational Transfers: In general, a transfer from the young to the old is a transfer from people who are relatively rich to people who are relatively poor. That is because of the phenomenon of economic growth, which makes each generation better off than the previous generation. At any point in time, the working-age population is being taxed to support retirees. (Diamond, 1998) **The “for” -social security- camp also has strong arguments:**

The economists like Sala-i-Martin (1996) argue that the social security and pensions have positive effects on the economy and growth because it incentivizes replacement of less productive labor force by the more productive labor force. The main idea is that pensions are a means to induce retirement that is, to buy the elderly out of the labor force because aggregate output is higher if the elderly do not work. This is modeled through positive externalities in the average stock of human capital: because skills depreciate with age, the elderly have lower-than-average skill and, as a result, have a negative effect on the productivity of the young. When the difference between the skill level of the young and that of the old is large enough, aggregate output in an economy where the elderly do not work is higher. This argument is applicable to India given the vast armies of unemployed youth!

The perennial economic issue who will be responsible to remove poverty? This comes out from a great recent paper by van Oorschot, Reeskens & Meueleman (2013), Gelissen & Oorschot (2013) bring out that people’s perceptions regarding the positive effects of

social security in removing poverty and role of welfare state is positive. The countries spending high amount on social security people perceive negative consequences strain on economy, less incentive to work as well as positive consequences (removal of poverty) of social security.

The debate on social security has been more of ideological nature focusing on whether it is desirable to tax working population to pay for the removal of poverty and benefit of the non-working population. However, no concrete evidence is found to prove the negative effects on savings and productivity.

The question is not whether social security per se is bad or good. The question is whether the overall macro environment is resilient to bear the burden of social security. Ultimately as for any issue related to public funding and taxation the perception depends on how efficient the Government is as a service provider and what the overall economic environment is. In recessionary times the pinch of social security is felt more.

For countries like India with a perennial problem of poverty dragging the entire economy away from propelling into higher level of growth it is worthwhile to adopt a comprehensive social security programme with a prerequisite of its efficient implementation.

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# Appendix

## 1. Terminologies explained

Additionally, to understand the social security systems it'll be helpful to understand few terms and terminologies as below:

- **Universal**

Universal programs provide flat-rate cash benefits to residents or citizens, without consideration of income, employment, or means. Typically financed from general revenues, these benefits may apply to all persons with sufficient residency. Universal programs may include old-age pensions for persons over a certain age; pensions for workers with disabilities, widow(er)s, and orphans; and family allowances. Most social security systems incorporating a universal program also have a second-tier earnings-related program. Some universal programs, although receiving substantial support from income taxes, are also financed in part by contributions from workers and employers.

- **Means-Tested**

Means-tested programs establish eligibility for benefits by measuring individual or family resources against a calculated standard usually based on subsistence needs. Benefits are limited to applicants who satisfy a means test. The size and type of benefits awarded are determined in each case by administrative decision within the framework of the law.

- **The types of systems for retirement income are defined as follows:**

**Flat-rate pension:** A pension of uniform amount or one based on years of service or residence but independent of earnings. It is financed by payroll tax contributions from employees, employers, or both.

**Earnings-related pension:** A pension based on earnings. It is financed by payroll tax contributions from employees, employers, or both.

**Means-tested pension:** A pension paid to eligible persons whose own or family income, assets, or both fall below designated levels. It is generally financed through government contributions, with no contributions from employers or employees.



<b>Flat-rate universal pension:</b> A pension of uniform amount normally based on residence but independent of earnings. It is generally financed through government contributions, with no contributions from employers or employees.	
<b>Provident funds:</b> Employee and employer contributions are set aside for each employee in publicly managed special funds. Benefits are generally paid as a lump sum with accrued interest.	
<b>Occupational retirement schemes:</b> Employers are required by law to provide private occupational retirement schemes financed by employer and, in some cases, employee contributions. Benefits are paid as a lump sum, annuity, or pension.	
<b>Individual retirement schemes:</b> Employees and, in some cases, employers must contribute a certain percentage of earnings to an individual account managed by a public or private fund manager chosen by the employee. The accumulated capital in the individual account is used to purchase an annuity, make programmed withdrawals, or a combination of the two and may be paid as a lump sum.	
a.	No country in the Americas has a provident fund.
b.	The benefit increases with the length of the contribution period.
c.	The government provides a guaranteed minimum pension.
d.	The universal pension is increased by an income-tested supplement.
e.	The earnings-related social insurance system is closed to new entrants and is being phased out.
f.	The pension formula contains a flat-rate component and an earnings-related element

## 2. National Social Assistance Programme

The National Social Assistance Programme (NSAP), which came into effect from 15th August 1995, represents a significant step towards the fulfilment of the Directive Principles in Article 41 and 42 of the Constitution. It introduces a National Policy for Social Assistance benefit to poor households in the case of old age, death of primary bread-winner and maternity.

The Programme has three components, namely: -

1. National Old Age Pension Scheme (NOAPS),

2. National Family Benefit Scheme (NFBS),
3. National Maternity Benefit Scheme (NMBS).

These Schemes were partially modified in 1998 based on the suggestions received from various corners and on the basis of the feedback received from the State Governments. The NSAP provides opportunities for linking social assistance packages to the schemes for poverty alleviation and provision of basic needs. Its major effectiveness lies in linking maternity to maternal and child care programmes which provide inclusive coverage for all. At the Districts, there are District Level Committees on NSAP. The States/UTs have notified the constitution of the District level implementing authorities under the Chairmanship of the respective District Magistrate/District Collector to implement the Schemes under NSAP in their respective areas. The Gram Panchayats/Municipalities are expected to play an active role in the identification of beneficiaries under the three NSAP Schemes.

### **3. Atal Pension Yojana(APY)**

In his Budget Speech for 2015-16, the Finance Minister has, announced a new initiative called Atal Pension Yojana (APY). The APY will be focused on all citizens in the unorganized sector, who join the National Pension System (NPS) administered by the Pension Fund Regulatory and Development Authority (PFRDA) and who are not members of any statutory social security scheme. Under the APY, the subscribers would receive the fixed pension of 1000/2000/3000/4000/5000 per month, at the age of 60 years, depending on their contributions, which itself would vary on the age of joining the APY. The minimum age of joining APY is 18 years and maximum age is 40 years. Therefore, minimum period of contribution by the subscriber under APY would be 20 years or more. The benefit of fixed pension would be guaranteed by the Government. The Central Government would also co-contribute 50% of the subscriber's contribution or 1000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years, i.e., from 2015-16 to 2019-20, who join the NPS before 31st December, 2015 and who are not income tax payers. The existing subscribers of Swavalamban Scheme would be automatically migrated to APY, unless they opt out.

Table of contribution levels, fixed monthly pension of 1,000 per month to subscribers and his spouse and return of corpus to nominees of subscribers and the contribution period under Atal Pension Yojana has been presented below.

**Details of APY for monthly pension of Rs1000/-**

Age of Joining	Years of Contribution	Indicative Monthly Contribution (in ₹)	Monthly Pension to the subscribers and his spouse (in ₹)	Indicative Return of Corpus to the nominee of the subscribers (in ₹)
18	42	42	1,000	1.7 Lakh
20	40	50	1,000	1.7 Lakh
25	35	76	1,000	1.7 Lakh
30	30	116	1,000	1.7 Lakh
35	25	181	1,000	1.7 Lakh
40	20	291	1,000	1.7 Lakh

Source:(PFRDA, 2015)

**4. Pradhan Mantri Jeevan Jyoti Bima Yojana(PMJJB Y) Premium Expenses(based on Census 2011)**

Age	Population	PMJJBY Premium Expenses in ₹	PMJJBY Claim Expenses in ₹
18	27958147	8079904483	4220097660
19	20859088	6028276432	3337454080
20	28882735	8347110415	4839220506
21	19978972	5773922908	3464278352
22	23528225	6799657025	4186248335
23	19154055	5535521895	3473027708
24	19880235	5745387915	3653462055
25	27768078	8024974542	5155431840
26	20076997	5802252133	3765383966
27	16709350	4829002150	3165318377
28	22127016	6394707624	4245882127
29	14732524	4257699436	2874232041
30	30399029	8785319381	6056863137
31	13823245	3994917805	2827244826
32	17613544	5090314216	3718784101
33	12764541	3688952349	2803382212
34	13994592	4044437088	3216115671
35	28422631	8214140359	6875059046
36	15827717	4574210213	4055479186

37	11692231	3379054759	3192199671
38	17471758	5049338062	5106368517
39	11726347	3388914283	3688268009
40	28528992	8244878688	9705240109
41	11567894	3343121366	4275755537
42	13380642	3867005538	5402749789
43	9334352	2697627728	4138816453
44	9626232	2781981048	4709588599
45	23872961	6899285729	12945450927
46	10992678	3176883942	6630866333
47	7951297	2297924833	5351372905
48	11649592	3366732088	8754778290
49	7851799	2269169911	6583659388
50	21462422	6202639958	20028894191
51	7885966	2279044174	8158255015
52	7735164	2235462396	8831222144
53	5590790	1615738310	7007475089
54	6394912	1848129568	8754996504
55	15607546	4510580794	23228740160
56	7071837	2043760893	11399000659
57	4599026	1329118514	8004908462
58	6718934	1941771926	12606241452
59	5148712	1487977768	10403312605

#### 5. PMJJBY Expenses, Age wise

Age	Total Population as per Census 2011	PMJJBY Expenses in ₹
18	2377052	686968028
19	2055973	594176197
20	2592525	749239725
21	2118952	612377128
22	2330053	673385317
23	1996850	577089650
24	2052586	593197354
25	2588930	748200770
26	2062553	596077817
27	1826531	527867459
28	2067222	597427158
29	1601877	462942453
30	2757064	796791496
31	1548794	447601466
32	1714660	495536740
33	1287968	372222752

Age	Total Population as per Census 2011	PMJJBY Expenses in ₹
34	1487821	429980269
35	2591092	748825588
36	1585038	458075982
37	1211057	349995473
38	1632934	471917926
39	1227039	354614271
40	2560132	739878148
41	1280248	369991672
42	1368558	395513262
43	974530	281639170
44	1012621	292647469
45	2175250	628647250
46	1126118	325448102
47	865431	250109559
48	1047648	302770272
49	818007	236404023
50	1927821	557140269
	<b>Total</b>	<b>16724700215</b>

#### 6. Expenditure of GOI on various social security schemes in India.

Schemes	Expenditure by Government of India (₹ Crore)
Rashtriya Swasthya Bima Yojana	929(2012)
Aam Aadmi Bima Yojana	175(2014-15)

Source:(Outcome Budget 2014-2015 (i) Executive Summary, 2015),(Dror & Vellakkal, 2012)

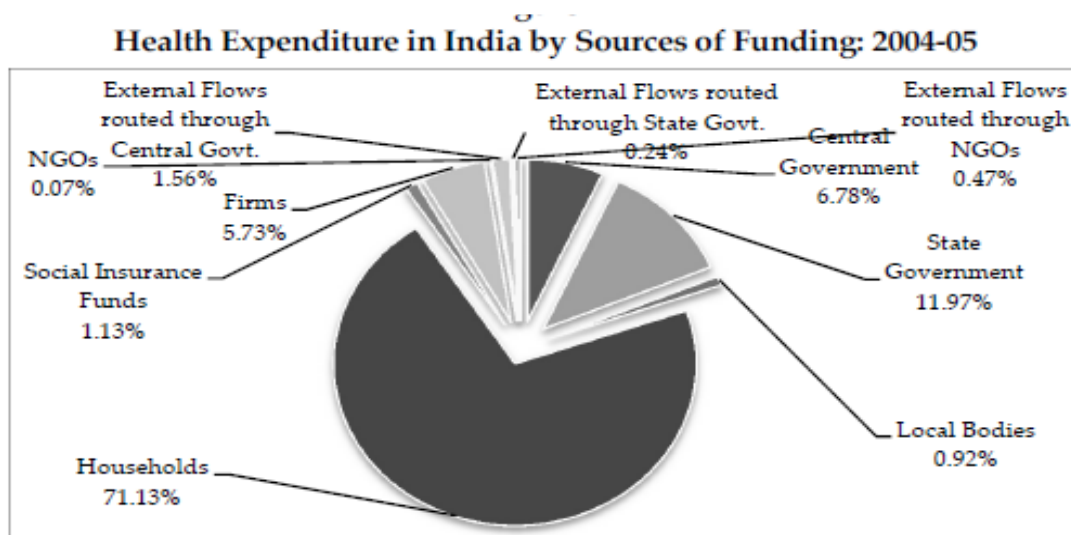
#### 7. Mortality Table

Age	q <sub>x</sub> (Mortality rate)	Age	q <sub>x</sub> (Mortality rate)	Age	q <sub>x</sub> (Mortality rate)	Age	q <sub>x</sub> (Mortality rate)
0	0.00445	26	0.00099	52	0.00605	78	0.05115
1	0.0039	27	0.001	53	0.00664	79	0.05566
2	0.00294	28	0.00102	54	0.00726	80	0.06056
3	0.00221	29	0.00103	55	0.00789	81	0.06587
4	0.00167	30	0.00106	56	0.00854	82	0.07163
5	0.00127	31	0.00108	57	0.00923	83	0.07788
6	0.00096	32	0.00112	58	0.00994	84	0.08465
7	0.00074	33	0.00116	59	0.01071	85	0.09198
8	0.00059	34	0.00122	60	0.01153	86	0.09993
9	0.00049	35	0.00128	61	0.01243	87	0.10854
10	0.00044	36	0.00136	62	0.01341	88	0.11787
11	0.00043	37	0.00145	63	0.0145	89	0.12796
12	0.00045	38	0.00155	64	0.01569	90	0.1389

Age	$q_x$ (Mortality rate)	Age	$q_x$ (Mortality rate)	Age	$q_x$ (Mortality rate)	Age	$q_x$ (Mortality rate)
13	0.00049	39	0.00167	65	0.01701	91	0.15073
14	0.00055	40	0.0018	66	0.01846	92	0.16353
15	0.00061	41	0.00196	67	0.02006	93	0.17739
16	0.00068	42	0.00214	68	0.02182	94	0.19237
17	0.00074	43	0.00235	69	0.02375	95	0.20859
18	0.0008	44	0.00259	70	0.02586	96	0.22611
19	0.00085	45	0.00287	71	0.02816	97	0.24507
20	0.00089	46	0.0032	72	0.03067	98	0.26556
21	0.00092	47	0.00357	73	0.03341	99	0.2877
22	0.00094	48	0.00398	74	0.03639	100	0.31163
23	0.00096	49	0.00444	75	0.03964		
24	0.00097	50	0.00495	76	0.04316		
25	0.00098	51	0.00548	77	0.04699		

Source: Indian Assured Lives Mortality (2006-08) Published with the concurrence of IRDA vide its letter dated 20th February 2013

## 7. Sources of the fund on health care expenditure.



Source: National Health Account for India: 2004-05, Ministry of Health and Family Welfare, Government of India, 2009.

Source : (Hooda, 2013)

## 8. Coverage of the different social security schemes in India

Schemes	Coverage (per cent) 2009-10	Coverage in top 3 states@ (per cent) 2009-10	Top three States in Coverage	Claims ratio 2009-2010	Time taken for settlement of claims
National Agricultural Insurance Scheme	15 (in 2008-09)	41.3 (33) (n 2008-09)	Mah, U.P, Raj	3.07**	8-10 months
Weather Based Crop Insurance Scheme	1.6			0.76***	
Livestock Insurance	3.04	60.23 (35.4)	T.N., A.P., Gnj	0.62^^	6 months
Group Accident Insurance Scheme for Active Fishermen	37.9	54.5 (11.1)	T.N., Orissa, A.P.	-	
Mahatma Gandhi Bunkar Bima Yojna (for handloom weavers)	18.1	74.1 (62.3)	T.N., A.P. Assam	1.2 (E.S) 1.6 (I.S)	Less than a month
Health Insurance Scheme (for handloom weavers)	55.4	59.3 (68)	Assam, T.N, W.B	0.5	1 month
Bima Yojna for Handicrafts Artisans	Universal	60.74 (14.6)	W.B., Kerala, T.N.	1.2 (E.S) 3.3 (I.S.)	70 % of respondents in P.S. reported delay As per LIC, less than a month
Rajiv Gandhi Shilpi Swasthya Yojna (for handicraft artisans)	16.9	46.5 (38.5)	U.P., W.B., Assam	0.8*	
Sheep Breeders Insurance Scheme	1.5			-	Less than a month
Sheep Insurance Scheme	0.7			-	
Group Insurance Scheme for Power Loom workers	2.6	59.9 (70.8)	T.N., Kar, Mah	1.1 (E.S) 1.3 (I.S.)	Less than 30 % claims settled in 3 months As per LIC, less than a month
Khadi Karigar Janashree Bima Yojna	29.6	62.9 (49.9)	U.P, Har, Raj	0.27 (I.S.)*	Complaints of delay
Coir Workers Group Personal Accident Insurance Scheme	Universal			0.8*	
Anganwadi Karyakarti Bima Yojna	Universal			0.05(E.S) 0.14(I.S.)	Less than a month
Family Welfare Linked Health Insurance Plan	Universal			2.6	Till Dec 2009, nearly 80 % of claims of 2009 policy settled
Universal Health Insurance Scheme	0.5 (in 2008-09)	80 (8.8) (in 2008-09)	Gujarat, Kerala, A.P.	0.34 (in 2008-09)	
Rashtriya Swasthya Bima Yojana	23^	48.3 (34.2)	U.P, Bihar, Gnj	0.35	
Aam Aadmi Bima Yojana		71.4	U.P, A.P, Bihar	0.48 (E.S.) 0.5 (I.S.)	

Note: \*\* in the period 2004-05 to 2008-09 @ figures in brackets indicate share of target group in the top three States. \*\*\* in the period 2007-08 to 2009-2010 ^^ in the period 2006-07 to 2009-10. ^49 per cent if estimated as a percentage of the BPL population in the implemented districts \* relates to the year 2007-08 -- E.S. indicates excluding scholarship, I.S. indicates including scholarship, Mah - Maharashtra, A.P. -- Andhra Pradesh, Raj - Rajasthan, T.N. Tamil Nadu, A.P. - Andhra Pradesh, W.B. - West Bengal, U.P. - Uttar Pradesh, Kar - Karnataka - Har - Haryana, Chattis -- Chhattisgarh

## 10. India's overall and state wise statistics of the Institutional Deliveries

Sl. No.	States/UTs	NFHS - 3 (2005-06)			DLHS - 3 (2007-08)			CES (2009)		
		Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
	All India	38.7	28.9	67.5	46.9	37.8	70.4	72.9	68.0	85.6
<b>I.</b>	<b>MAJOR STATES (Population &gt; 20 million)</b>									
1	Andhra Pradesh	64.4	55.9	81.5	71.8	65.7	90.9	94.2	94.3	94.0
2	Assam	22.4	17.9	58.0	35.1	31.8	66.7	64.4	61.9	81.6
3	Bihar	19.9	16.7	44.0	27.5	25.5	54.1	48.3	46.0	67.4
4	Chattisgarh	14.3	6.3	54.5	18.0	13.3	48.3	44.9	40.5	62.6
5	Gujarat	52.7	39.2	75.7	56.4	48.0	83.7	78.1	73.1	86.5
6	Haryana	35.7	26.7	64.0	46.8	42.1	61.5	63.3	59.5	72.7
7	Jharkhand	18.3	10.3	53.3	17.7	13.4	59.4	40.1	30.6	73.3
8	Karnataka	64.7	54.8	81.8	65.1	59.7	79.8	86.4	83.3	92.4
9	Kerala	99.3	99.0	100.0	99.4	99.2	99.9	99.9	100.0	99.7
10	Madhya Pradesh	26.2	17.1	57.2	46.9	40.7	72.1	81.0	77.4	91.3
11	Maharashtra	64.6	48.9	83.3	63.5	54.1	87.2	81.8	74.4	92.0
12	Odisha	35.6	31.3	63.1	44.1	40.2	74.4	75.5	74.4	81.8
13	Punjab	51.3	47.6	57.9	63.1	59.5	72.3	60.3	54.1	72.4
14	Rajasthan	29.6	20.8	63.7	45.4	40.6	67.5	70.5	67.5	80.1
15	Tamil Nadu	87.8	84.0	92.4	94.0	91.8	97.5	98.4	98.1	98.7
16	Uttar Pradesh	20.6	15.8	39.5	24.5	22.0	38.0	62.1	59.9	70.1
17	West Bengal	42.0	32.2	79.7	48.9	43.3	80.7	69.5	63.3	85.5
<b>II.</b>	<b>SMALLER STATES</b>									
1	Arunachal Pradesh	28.5	17.6	58.5	47.6	42.3	67.7	69.9	66.6	82.6
2	Delhi	58.9	47.0	60.1	68.7	57.0	69.7	83.6	78.1	84.0
3	Goa	92.3	91.8	92.6	96.4	97.8	95.1	99.8	100.0	99.7
4	Himachal Pradesh	43.0	39.8	75.9	48.3	46.2	71.1	50.3	46.4	86.3
5	Jammu & Kashmir	50.2	44.4	74.0	54.9	49.8	85.7	80.9	76.0	95.7
6	Manipur	45.9	37.0	69.2	41.0	33.7	73.4	80.0	75.6	92.2
7	Meghalaya	29.0	20.1	73.6	24.5	20.7	59.0	63.6	56.4	93.6
8	Mizoram	59.8	35.7	87.3	55.7	40.3	85.6	83.0	68.2	97.9
9	Nagaland	11.6	6.7	29.2	..	..	..	30.4	24.3	60.0
10	Sikkim	47.2	40.4	85.3	49.5	48.5	88.1	68.9	66.8	85.2
11	Tripura	46.9	42.9	69.9	46.2	41.5	92.1	82.6	79.7	97.0
12	Uttarakhand	32.6	25.1	57.1	30.0	25.1	58.5	53.5	45.0	78.3
<b>III.</b>	<b>UNION TERRITORIES §</b>									
1	A&N Islands	..	..	..	76.3	72.4	89.8	88.1	86.4	92.1
2	Chandigarh	..	..	..	73.6	50.8	77.4	-	-	-
3	D&N Haveli	..	..	..	46.0	35.6	88.6	-	-	-
4	Daman & Diu	..	..	..	64.0	60.2	71.2	-	-	-
5	Lakshadweep	..	..	..	90.3	87.2	94.2	-	-	-
6	Puducherry	..	..	..	99.1	97.4	99.6	-	-	-

Source: NFHS III (2005-06), DLHS -III (2007-08) and Coverage Evaluation Survey, UNICEF (CES), 2009 - All India Report

§ The information of Union Territories have been taken from Facts Sheets DLHS III (2007-08)



## 11. Schemes started by Government of India

The table below highlights some of the policies initiated by government of India in the last two decades. These are categorized based on the ministries they are started by.

### Schemes Started by Central Government

Implemented by Ministry	Name of the Scheme	Year
Ministry of agriculture	National Agriculture Insurance scheme	1999-00
	Weather Based Crop Insurance	2007-08
	Livestock Insurance	2005-06
Ministry of Textile	Group Accident Insurance for Active Fisherman	
	Handloom weavers comprehensive Welfare scheme	2007-08
	1. Mahatma Gandhi Bunkar Yojana	2005-06
	2. Health Insurance Scheme	2005-06
	Handicraft artisans comprehensive Welfare scheme	2007-08
	1.Bima Yojana for Handicraft Artisans	2003-04
	2.Rajiv Gandhi Shilpi Swasytha Yojana	2006-07
	Wool Sector	
	1.Sheep breeders insurance scheme	2007-08
	2.Sheep Insurance	2007-08
Ministry of micro, small and Medium Enterprises	Powerloom	
	1.Group Insurance scheme for Powerloom workers	2003-04
	Khadi Karigar Janshree Bima Yojana	2003-04
Ministry of Women and Child Development	Coir Workers Group Personal Accident Insurance Scheme	2005-06
	Anganwadi Karyakarti Bima Yojana	2004-05
Ministry of Health and Family Welfare	Family Welfare linked health Insurance Plan	2005-06
Ministry of Labor and Employment	Rashtriya Swasthya Bima Yojana(RSBY)	2007-08
Ministry Of Finance	Aam Admi Bima Yojana(AABY)	2007-08
	Universal Health Insurance Scheme(UHIS)	2003-04
	Janshree Bima Yojana(JBY)	2000-01

Source: Compiled by the researcher.

An overview of the nature of insurance schemes indicates that five broad categories of insurance schemes are supported by Government of India:

- (ii) Crop insurance schemes providing insurance against yield losses.
- (iii) Life and group accident insurance schemes insuring against death and disability of an earning member of a family.
- (iv) Health insurance schemes against unforeseen health expenditure
- (v) Old age pension
- (vi) Occupation specific schemes such as Livestock and sheep insurance schemes providing insurance against death of cattle, buffalo and sheep.

## 12. Schemes started by State governments

While the social security schemes are started by the central government in India, there are some schemes that the states initiate based on the specific need and demand of its people. The table 2-8 below lists some of such prominent schemes.

### Social Security Schemes Started by Different State Governments

Scheme Name	State	Type of Scheme	Beneficiary
Matri Shakti Bima Yojana	Himachal Pradesh	Life Insurance	Women Below poverty line
Yeshasvini Co-operative Farmer Health Care Scheme	Karnataka	Health Insurance	Members of co-operative societies
Rajiv Arogyasri Community Health Insurance Scheme	Andhra Pradesh	Health Insurance	All families BPL.
Chief Minister Kalaignar's Insurance Scheme	Tamil Nadu	Health Insurance	Families earning less than 72000/- per year or members of 26 welfare boards.
Vajpayee Arogyasri Scheme	Karnataka	Health Insurance	BPL families residing in Gulbarga division
Abhaya Hastham	Andhra Pradesh	Pension and Life Insurance	Women members of Self Help Group in rural and urban areas

Source: (Comprehensive Social Security for the Indian Unorganized Sector, The Ministry of Finance, Government of India, 2013)

**NUMBER OF SUBSCRIBERS REGISTERED UNDER NPS (AS ON 31ST AUGUST, 2016)**

<b>FY 2016-17 up to 31/Aug/2016 (cumulative)</b>	<b>No. of Subscribers</b>	<b>Total Contribution M&amp;B ( Crs)*</b>	<b>AUM ( Crs)</b>
Central Government	1,723,203	40,477.18	56,760.58
State Government	3,110,200	56,306.77	71,329.08
Corporate Sector	514,411	9,841.19	11,752.91
Unorganized Sector	254,677	1,586.73	1,763.87
NPS Swavalamban	4,459,049	2,022.71	2,508.71
<b>Total</b>	<b>10,061,540</b>	<b>110,234.58</b>	<b>144,115.15</b>

Source:(Assets Under Management and Number of Subscribers - NPS, 2016)