

***CHAPTER VI***  
**SUMMARY AND CONCLUSIONS**

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In India, women's involvement in agriculture is complex and diverse. In almost all parts of the country women are largely involved in agriculture. They participate in wide range of activities in farming. There is a considerable variation in women's participation across regions from northern part to southern part of the country. In light of this fact, the researcher has tried to put forward the regional disparities in agriculture and its women labourers status in northern part of India (Haryana) and southern part of India (Kerala).

Kerala and Haryana are the two distinctively located states in the country. The Kerala state is situated in a narrow coastal strip on the south-western tip of India lying between  $8^{\circ} 18' E$  to  $12^{\circ} 48' N$  latitude and between  $74^{\circ} 52'$  and  $77^{\circ} 22'$  East Longitude. The state has an area of 39,863 square kilometers constituting about 1.18 per cent of the total geographical area of the country. Whereas, the State of Haryana is situated in the North central part of India. The state of Haryana is confine within  $27^{\circ} 39' to 30^{\circ} 35' N$  Latitude and between  $74^{\circ} 28' to 77^{\circ} 36'$  East longitude. The total geographical area of the state is 44, 212 sq. km., representing 1.4 per cent of the total geographical area of the country. The present state of Kerala came into existence on November 1, 1956 consequent on the reorganization of states in India on linguistic basis, according to the State Reorganization Act of 1956. It has Karnataka state on the north, Tamil Nadu state on the east and south and the Arabian Sea on the west. The State of Haryana came into being on 1st November 1966 as a result of reorganization of erstwhile State of Punjab into Haryana and Punjab. The State is bounded by Uttar Pradesh on the east, Punjab on the west, Himachal Pradesh on the north and Rajasthan in the south. Kerala is the 17<sup>th</sup> state in area in the country. The state has 14 districts. The Haryana state is the 20th largest state in the country in terms of area. According to 2011 census, Haryana state have 21 districts. Kerala, a narrow segment in the south-western part of Peninsular India, extends over a distance of 560 km along the west coast width varying from 15 to 120 kms. Within the limited period of 38863 sq. kms. it presents a very wide variation in its physical features. Haryana state is located between the Shivalik hills on the northeast and Thar Desert on the south-west. The division include, Active floodplain, Aeolian Plain, Arawali Pediment, Avio-

fluvial Plain, Fluvio\_Aeolian Plain, Old Alluvial Plain, Paleo Channel, Piedmont Plain, Arawali Hills, Siwalik Hills and Sub Recent Alluvial Plain. the physiographic regions of Kerala included highland, midland and lowland. The Lakshadweep sea in the west and a long range of mountains called the Sahyadris in the east bound the state. Palghat Gap with a width of about 30 km, is a major break in Western Ghats within Kerala with the elevation dropping below 300 m. The Palakkad Gap is considered to have been formed by tectonic and erosional processes. In Haryana state, Old Alluvial Plain is spotted in all the parts of Haryana state except Mahendragarh district. Aravalli Hills are observed in southern part of the state And Siwalik Hills are in the northern part of Haryana state.

The geomorphology of Kerala state includes, alluvial plain, coastal plain, denudational hills, flood plain, Marshy land, Pedi plain, Piedmont zone and Plateaus, residual hills. The structural hills are sparsely distributed in Palakkad and Malappuram. Geomorphological classification of various geomorphological processes, landforms and their evolution is of utmost importance in Haryana state. Based on topographic, drainage and lithological characteristics, three major geomorphological units namely- structural and denudational hills, alluvial plain and aeolian plain, can be identified in Haryana state. Most of the surface area of the state is constituted of the Late Quaternary deposits. The Kerala state geologically has four major rock formations namely Quaternary Sediments, Laterite developed on crystalline and sedimentary rocks, Sedimentary rocks (Cenozoic) and Crystalline rocks (Precambrian). The geology of Haryana is predominated by the Quaternary alluvium and aeolian sediments covering nearly 95% of area. The rest of the area comprises Proterozoic and Tertiary rocks exposed in the southern and northeastern extremities of the state, respectively. The Quaternary to recent include (i) Blown Sand and (ii) Alluvium.

Kerala state has 44 rivers. Out of which, 41 flows westward to the Lakshadweep Sea and the rest three are east-flowing rivers. Some of the west flowing rivers join together before their outfall; therefore, there are 34 river basins drained by the 44 rivers. Some of the west-flowing rivers have a portion of their catchments in the adjoining States of Tamil Nadu and Karnataka. The general drainage pattern of Kerala is dendritic indicating dominance of crystalline rocks. At places, it is sub-parallel and radial. Most of the rivers are structurally controlled and follow conspicuous lineaments, the general direction being NW-SE and NE-SW. The Haryana state is

mainly drained by non-perennial streams. The Yamuna is the only perennial river which borders the eastern boundary of the State. It rises from the snow-clad peaks of the middle Himalayas at Yamnotri, the Yamuna enters the Haryana State i.e. from its north-eastern corner through a narrow corridor in the Shiwalik hill range. The spatial distribution of different soils in Kerala are clay (Black Soil), gravelly clay (Laterite Soil), gravelly loam (Forest Soil), loam (Red and Riverine Alluvium) and sandy soil (Coastal Soil). Tropical weathering has pronounced impact on soil formation. Precambrian crystalline rocks, tertiary sedimentary formations, quaternary and recent deposits form the parent materials in Kerala. In Haryana state, following type of soil types are observed, Typic Ustorthents, Fluventic ustochrepts, Udic Ustochrept, Typic Ustifluvents, Typic Ustrochrept, Typic Ustipsammens, Typic Camborthids and Typic Torripsammens.

Climate is a very important component of physical environment influencing the agricultural pattern and productivity. Kerala State falls in the region of tropical climate. The coastal location of the State and a high variation in relief from the coast to the Western Ghats influence the climate characteristics to a large extent. Whereas the Haryana state climate is based on Koppen climatic classification (1936), the district of Karnal, Ambala and a portion of Kurukshetra district lying between Karnal and Ambala fall under the climatic type Cwa: Sub-tropical monsoon mild winter; dry winter; hot-summer-Only Sirsa district has got climatic type Bwh: Tropical desert, arid; hot and Hisar district has a climatic type varying between Bwh (Tropical Steppe, Semi-arid; hot ).The rest of the State belongs to the climatic type Bsh. In Kerala state, the period March-May is the hottest when temperature reaches its maximum. From June, it gradually come down due to heavy monsoon. Again, an increased trend is followed in October and November followed by the lower temperatures in the months of December and January. Seasonal and diurnal variations of temperature are not uniform throughout the state while in Haryana, the day temperatures are more or less uniform over the plains except during winter and monsoon when the temperatures increase southwards and north-westwards respectively. In Kerala state, the annual rainfall varies from less than 1500mms. to more than 4500 mms. The yearly rainfall pattern records a change from north to south. Max. annual rainfall occurs in Kasaragod and midlands of Ernakulum and Kottayam. Low annual rainfall is found in eastern part of Wayanad, Palakkad and Idukki and western part of Thiruvananthapuram district. While in Haryana state, the rainfall constitutes the primary source of water in the state as there are only two major perennial rivers namely Yamuna and Ghaggar draining the region. the

agricultural based economy of the state depends on the annual rhythm of rainfall received differently over space as well as time. the state receives an average rainfall of about 650mm. the mean annual rainfall varies from less than 300 mm in the western and south-western parts of Sirsa, Hisar and Bhiwani districts along the Rajasthan border to over 1000mm in the northeastern Siwalik hilly tracts of Panchkula and Yamunagar districts along the Himachal Pradesh Border.

In Kerala state, the forest area is confined to parts of highland and midland zones of Western Ghats and its foothills. The state has 0.9% of very dense forest, 23.9% of moderate dense forest, open forest of 15.3% and 59.9% of non-forested area. Whereas in Haryana state, the tree cover is more in non-forest area than in the natural forest area. The non-forest areas include Farms, Village woodlots, plantations along road side, canals, railway lines, waterbodies and others. The state does not have very dense forest, 1.2% of moderate dense forest, open forest of 2.3% and 96.5% of non-forested area. The importance of transportation is very high for both the states. The Kerala state has eight National Highways. There are 72 state highways in the state. Because of backwater in the state, Kerala state have inland water transport facility. The National Waterway No.3 or the West Coast Canal is located in Kerala state and run from Kollam to Kottapuram. In Haryana state, the roads and railways are the important source of the development. The length of the roads has increased by 17466kms in the state during 1966-67 to 2014-15.

In Kerala state, most of the agricultural land is distributed in the western part and forest area in the eastern part. Built up area are found near to agricultural land. Hard crust laterite unsuitable for cultivation is mainly found in northern part of the state. The built-up land constituting the major cities of the state includes Gurgaon, Faridabad, Ambala, Rohtak, Panipat, Sonipat and Karnal. Remaining part of the state have built up area in patches in almost all the districts of the state. The crop land is the main land use of the state. Forest area in the state are confined to the Himalayan ranges in Panchkula, and Yamunagar districts of Aravalli's ranges in the southern districts. Agriculture in Kerala is characterized by a diversity of crops, many are garden crops grown as inter-crops in a given area. The state is well known for its produces like Rubber, Coconut, Areca nut, Tapioca, Coffee, Cardamom and Tea. Nearly half of Kerala's people are dependent on agriculture alone for income. Rice is the predominant food crop in Kerala. A steady decline in the area under rice cultivation from the 1980s onwards. The steady

decline in the area under rice cultivation poses serious threat not only for food security but also for ecological sustainability of the state. However, Haryana state geographically continues to be the agrarian state. The rural population are dependent on agriculture for their livelihood. Wheat and rice are the major crops. Haryana is self-sufficient in food production and the second largest contributor to India's central pool of food grains.

According to Census 2011, Kerala has population of 3.34 Crores, an increase from figure of 3.18 Crore in census 2001. The population of Kerala forms 2.76 % of India in 2011. Density of population of Kerala is 860 persons per sq.km. as per Census 2011 where as that of India is 368. The district of Thiruvananthapuram with 1508 persons per sq.km. is reported to have the highest density and the district of Idukki with 255 persons per sq.km. is having the lowest density. The sex-ratio of Kerala was 1058 in the year 2001 which increased to 1084 females per thousand males in the 2011. All districts of Kerala show positive sex ratio, that is more females per thousand males. in 2011, the literacy rate of the state is 94% where male literacy rate is 96.11% and female literacy rate is 92.07%. Literacy rate in the rural area is 92.92% and that of urban area is 94.99 %. Whereas, Haryana state has 2.53 crore populations and covers 1.34% of India's geographical area. Population density of the state is 573 persons per sq. km with a sex ratio of 879 females per 1,000 males. Though Haryana has witnessed gradual urbanization since 2001, as per the Census of 2011, 65.1% of its population (1.65 crore persons) still lives in rural areas a drop of 6 percentage points from 71.1% recorded in the Census of 2001. The overall literacy rate of state is 76.64 of total population. The male literacy rate is 85.4 per cent which is higher than female literacy rate which is 66.8 per cent.

According to census 2011, out of the 1,16,19,063 workers, 93,29,747 are main workers and the remaining 22,89,316 are marginal workers. The percentage of main workers among the total workers in Census 2011 is 80.30% against 80.10% in Census 2001. The percentage of main workers among the male workers is 84.95% and that among female workers is 67.87%. The percentage of male main workers has increased from 83.20% to 84.95% in Census 2011. On the other hand, the percentage of female main workers has reduced from 70.54% to 67.87% in Census 2011. Whereas in Haryana state, out of total female workers (2109872), 1154683 that is 54.7% are main workers and 955189 that is 45.3% are marginal workers. Out of total female workers 76.35% of female workers are from rural part of Haryana state while only 23.65% of female workers are from urban part of the state. Among the female main

workers 92.79% of female workers are from rural part of Haryana state while only 7.21% of female workers are from urban part of the state. Similarly, Among the female marginal workers 96.06% of female workers are from rural part of Haryana state while only 3.94% of female workers are from urban part of the state. The contribution of female agricultural labourers in agriculture is much higher in rural part of both the state. Their contribution cannot be neglected in any form, as they make the rural economy and real source of food security of the nation.

Agriculture continues to be the most important sector of the country. Kerala and Haryana state too have high status of agriculture. However, its contribution to GDP of the country and GSDP of the states is constantly decreasing. Which is a matter of concern as both the state has highest contribution of Agriculture and allied activities. In Kerala state, more than 50% of area is under net area sown. However, the area under net sown area is noticed with reducing trend during 1975-76 to 2013-14 in Kerala state. In Haryana state, the contribution of net area sown is more than 80% and is recorded with an increasing trend over the period of time. It concludes that both the states are agrarian states. In Kerala state, rice is the major food grain produced in the state with 11.47% and covers an area of 9.37%, among the twelve principal crops in Kerala for the year 2013-14. Kerala state depicts a declining trend of area under food crops of the state while an increasing trend of area under nonfood crops over the period of time. This shows a major change in the agricultural pattern of the state, where there is a gradual shift of area under food crops like rice and tapioca to plantation crops like rubber, coconut, cashew and coffee over the period of time. Perhaps the shift from subsistence agriculture to commercial agriculture. The trend in the land utilization of Haryana shows a major change throughout the period. The area under forest declined from 1.26 % in 1975 to 0.91% in 2013 (Table 3.16). However, the land put to non-agricultural use have significantly increased from 4.54% to 12.4% during 1975-76 to 2012-13, respectively. This is due to the rapid urbanization, construction and developmental works (railways, roads, establishment of industries).

Rice is the most important food crop of Kerala state. the production of rice is showing a steep decreasing trend over the period of time. The gap between the requirement and production of rice in the state has been showing an increasing trend in the past. The deficit which was about 50% in the 1960s, increased to more than 75% in the 1990s and to an alarming level of 85% in 2007-2008. At present, the state produces only one-sixth of its total food grain requirement. For

the rest, it depends on the Centre and neighboring states like Tamil Nadu and Andhra Pradesh (Rejula and R. Singh, 2014). According to the Agricultural development policy, draft of Govt of Kerala (2013), if the present trend is allowed to continue the state of Kerala would become most food insecure part in the country". Despite industrial development in Haryana, the state is primarily an agricultural state. Wheat and rice are the two major food crops of the state. Haryana is self-sufficient in food production and the second largest contributor to India's central pool of food grains. The largest area under cultivation is of wheat in the state, which contributes 44.95%. Similarly, the production of wheat is also the highest, contributing 57.18% in the state. The second most important food grain produced in the state is rice. Rice is cultivated in 1245 thousand hectares in the state, which is 22.39%. With respect to the production of rice in the state, the data shows as the second largest production among the twelve major crops of Haryana state. It is observed that, wheat has production higher than area. Whereas rice depicts larger area under cultivation than its production. In Kerala state, the area and production of rice is decreasing trend while in Haryana state the area and production of rice is showing an increasing trend.

The Central Statistics Office of India classified the entire economic activities into the following sectors and sub sectors and items. Primary Sector- Agriculture (Agriculture proper & Livestock), Forestry & Fishing, Mining & Quarrying. Secondary Sector- Manufacturing (Registered & Unregistered), Electricity, Gas & Water supply, Construction. Tertiary sector- Transport, Storage & Communication, Trade, Hotels& Restaurants, Banking & Insurance, Real Estate, Ownership of Dwelling & Business, Public Administration & Defence, Other Services. In Kerala state, the contribution from tertiary sector had been steadily increasing in the recent years, while that from secondary sector had been remaining stagnant, and the primary sector decreasing constantly for the year 2011-12, 2012-13 and 2013-14. The tertiary sector, has been constantly increasing from 60.96 % in 2006-07 to 68.80 % in 2010-11, which further increased to 70% by 2013. It clearly shows that the tertiary sector has been the leading growth driver of Kerala's economy over the period of time. In Haryana state, during 2013-14, the contribution from primary, secondary and tertiary sectors to the GSDP at constant prices (2004-05) was 16.8%, 15.6 % and 15.23 % respectively. The tertiary sector, has been constantly increasing from 46.58 % in 2006-07 to 53.53 % in 2010-11, which further increased to 57% by 2013. The secondary sector and the primary sectors is decreasing over the period of time. The detailed view of

agricultural sector alone clarifies the actual hurdles in the growth of primary sector of both the states. the contribution of agriculture and its allied activities is much higher than the other departments. While the least contribution is from mining and Quarrying department. However, the trend of mining and Quarrying department depicts an increasing trend which could be the major threat to the environment of the state. While decreasing trend is observed in agriculture and allied Activities, which may lead to greater distress to the state as it would affect not only the food security of the state but also severely effect on the livelihood of the unorganized, unskilled, poor rural women agricultural labourers along with the flora and fauna of the region.

As discussed earlier, the major food crop of Kerala state is Rice. It is important to note that rice is a labour intensive crop, where it is lifeline for the unorganized, unskilled, poor rural women agricultural labourers. It is also pertinent to note that they are the most important part of paddy cultivation and the most deprived section of the society. In Haryana state, the detail of primary sector depicts that the contribution of Agriculture & allied Activities department is increasing from 93.62% in 2006-07 to 94.43% in 2010-11. The contribution of Agriculture & allied Activities department is above 90% in the state, which is the highest contribution to the sector. Remaining departments of the primary sector contributes less than 5%. The state shows a decreasing trend of primary sector while there is an increasing trend of agricultural and allied actives, which contributes above 90% to the primary sector. therefore, it can be concluded that the increase in agricultural and allied activities is not proportional to decrease in primary sector. Hence the problem in the state rest with the fact that, there is still need to improve the agricultural and allied activities to accelerate the primary sector to overcome the Gap. Among the principal crops of Haryana state, it is noted that rice cultivation is increasing marginally in recent years. Rice is an labourer intensive crop and its demand for labourer is fulfilled by the local women agricultural labors. Therefore, it is pertinent to study the status of paddy cultivation and its labourers.

Rice is the staple food of the people of Kerala, and, traditionally, the cultivation of rice has occupied pride of place in the agrarian economy of the State (Thomas, 2012). Paddy is cultivated in three seasons in all the districts of Kerala except Wayanad district. In Wayanad there is no autumn paddy cultivation. The spatial distribution of area and production in the state reveals that Palakkad district is the major rice producing district along with highest area under

rice cultivation. In Haryana state, Rice is the kharif crop and an important food crop of the state. The spatial distribution of area and production in the state reveals that Karnal district is the major rice producing district along with highest area under rice cultivation. The Palakkad district of Kerala state have majority of area under agriculture. The net area sown has the majority of land in Palakkad district. Rice is the major crop of the district and the district is popularly known as “The Rice bowl of the Kerala”. However, the study of trend in area and production of rice in the district reveals that both area and production of rice in the state is decreasing. Rice being a labour intensive crop, the labourers are the integral part of cultivation of the crop. In Haryana state, out of total land of Karnal district, 79% of land is under net area sown. Rice is the important crop of the district. Karnal district is popularly known as “The Rice bowl of Haryana”. Rice is a labour intensive crop and require a large proportion of labourers in cultivation of rice, which is fulfilled by the local women labourers. Hence, these labourers are an integral part of rice cultivation. Therefore, for a substantial and sustainable improvement in the production of the rice, it is equally important to improve the status of women agricultural labourers engaged in paddy cultivation.

Weaver's crop combination technique reveals that rice is the important crop of the Palakkad district of Kerala state and Karnal district of Haryana state. In Palakkad district, Chittur taluk have two crop combinations. These two crops are rice and coconut, while Ottapalam taluk has four crop combinations. These crops are rice, coconut, fruits and spices. Remaining part of the districts have three crop combinations. These crops are rice, coconuts and fruits. In Karnal district of Haryana state, the entire Karnal district have two crop combinations. These two crops are rice and wheat, where rice is the kharif crop while wheat being a rabi crop of the district. Through crop concentration technique, it is observed that in Palakkad district of Kerala state, that Chittur, Ottapalam and Palakkad taluks have high concentration of rice while Alathur and Mannarkkad taluks have medium and low level of concentration of rice, respectively. Whereas, Karnal district of Haryana state, the entire Karnal district have high concentration of rice. The technique of the diversification of Crops in Palakkad district of Kerala state explains that Chittur and Alathur taluks have low diversification of crop while remaining part of the district shows high level of crop diversification. while in Karnal district of Haryana state, entire Karnal district have low level of crop diversification. The cropping intensity of Palakkad district of Kerala state depicts that, the cropping intensity is highest in Chittur taluk, followed by Alathur taluk then

Palakkad taluk. Remaining part of Palakkad district have lower cropping Intensity. In Karnal district of Haryana state, entire Karnal district have highest cropping intensity. Labourers of rice cultivation being an integral part of the cultivation of rice, their status study cannot be neglected.

The total female workers of Kerala state are 3167494, out of which 296219 of female worker are in Palakkad district. The total workers of Palakkad district are 296219, of which 237333 are rural female workers. They contribute 80% of workers in rural part of Palakkad district, while only 20% of female workers of Palakkad district are urban workers. This reveals the fact that major part of the women workers of Palakkad district are the rural workers, who keep the rural economy alive. The total main workers of Palakkad district are 222058, of which 176953 are rural main female workers. They contribute 79.69% of main workers of rural part of Palakkad district, while only 20.31% of female main workers of Palakkad district are urban workers. The total female main agricultural labourers of Palakkad district are 90872, of which 84015 are rural female main agricultural labourers. They contribute 92.45% of female main agricultural labourers of rural part of Palakkad district, while only 7.55% of female main agricultural labourers of Palakkad district are urban workers. It clearly points that the more than 90 % of female main agricultural labourers of Palakkad district are from rural part of the district. The total marginal female workers of Palakkad district are 74161, of which 60380 are rural marginal female workers. They contribute 81.42% of marginal female workers of rural part of Palakkad district, while 18.58% of female marginal workers of Palakkad district are urban workers. The total female marginal agricultural labourers of Palakkad district are 29728, of which 26806 are rural marginal female agricultural labourers. They contribute 90.17% of rural female marginal agricultural labourers of rural part of Palakkad district, while only 9.83% of female marginal agricultural labourers of Palakkad district are urban workers. It clearly points that the majority of female marginal agricultural labourers of Palakkad district are from rural part of the district. Whereas, the total female workers of Haryana state are 2109872, out of which 104416 of female worker are in Karnal district. The total female workers of Karnal district are 104416, of which 76847 are rural female workers. They contribute 73.60% of workers in rural part of Karnal district, while only 26.40% of female workers of Karnal district are urban workers. The total main workers of Karnal district are 59803, of which 38760 are rural main female workers. They contribute 64.81% of main workers of rural part of Karnal district, while 35.19% of female main workers of Karnal district are urban workers. The total rural female main

agricultural labourers of Karnal district are 160376, of which 13850 are rural female main agricultural labourers. They contribute 91.70% of rural female main agricultural labourers of rural part of Karnal district, while only 8.30% of rural female main agricultural labourers of Karnal district are urban workers. It clearly points that the more than 90 % of female main agricultural labourers of Karnal district are from rural part of the district. The total marginal female workers of Karnal district are 44613, of which 38087 are rural marginal female workers. They contribute 85.37% of marginal female workers of rural part of Karnal district, while 14.63% of female marginal workers of Karnal district are urban workers. The total female marginal agricultural labourers of Karnal district are 23063, of which 22041 are rural marginal female agricultural labourers. They contribute 95.57% of rural female marginal agricultural labourers of rural part of Karnal district, while only 4.43% of female marginal agricultural labourers of Karnal district are urban workers. It clearly points that the majority of female marginal agricultural labourers of Karnal district are from rural part of the district.

In both the states, Kerala and Haryana, the majority of women agricultural labourers are of age between 36 to 50 years. These are the women engaged in paddy cultivation from early age and find difficulty to step to other occupation. It is also observed that the younger generation of Palakkad district of Kerala state are not indulging in paddy cultivation. However, in Karnal district of Haryana state, women with early marriage and economically poor family are depend on paddy cultivation for their livelihood.

Paddy cultivation is a labour intensive process, where a large number of agricultural labourers are in need. Thus, a large number of women agricultural labourers find their livelihood by working in paddy cultivation in the rural part of both the states. However, it is worthy to note that in both the states, only Hindu religious people are engaged in paddy cultivation. It is also interesting to find that other religious people do work under MGNREGA, but are not involved in cultivation of paddy in both the state. The study also discovers that in Kerala and Haryana states, the women agricultural labourer of only Schedule caste/ schedule tribe and Other backward caste are engaged in paddy cultivation. No general caste women work as agricultural labourers in Kerala and Haryana state, instead they work as unpaid family labourers in their own field to support the family income.

Since the study is confined to problems of ever married women agricultural labourers engaged in paddy cultivation of both the states, therefore all the sample population considered for the study are ever married. In case of type of family, unlike in Palakkad district of Kerala state, where by large nuclear type of family is observed, Karnal district of Haryana state still continue with joint family among the women agricultural labourers engaged in paddy cultivation. The percentage of literates and education up to 5<sup>th</sup> is much higher in Palakkad district of Kerala state, while in Karnal district of Haryana state is just opposite. In Karnal district of Haryana state, very high proportion of women agricultural labourers engaged in paddy cultivation are illiterate.

In Kerala and Haryana state, majority of houses of the women agricultural labourers engaged in paddy cultivation are cemented. All the Schedule caste women agricultural labourers have constructed an incomplete house under various housing Scheme of both the states. The tiled houses of Palakkad district of Kerala state are old in construction and that these houses belong to women agricultural labourers traditionally engaged in paddy cultivation. They feel proud in working as agricultural labourers in Paddy fields. In both the states the major source of drinking water is private tap followed by Public Tap / Hand pump. Very few women agricultural labourers have private well in and no public wells are used by women agricultural labourers of Palakkad district of Kerala state. Where as in Karnal district of Haryana state less number of women agricultural labourers use public tap. However, no private wells are used by women agricultural labourers in Karnal district. In both the states, majority of women agricultural labourers have access to drinking water within premises. There are few women agricultural labourers having access to drinking water above 200 mts in Karnal district of Haryana state. Where as in Palakkad districts in Kerala state access to drinking water above 200 mts is not found as access to drinking water is either with premises or within 200 mts.

Due to poor financial status, none of the women agricultural labourers use LPG solely for cooking purpose in both the states. In Haryana state, as firewood is not commonly available, they use dried cow dung for cooking, while in Kerala state firewood is commonly used along with LPG. In both the states, women agricultural labourers have toilets within compound. And only two of the women agricultural labourers of Palakkad district of Kerala state have attached toilets.

These women are financially little better but are traditionally bonded with their profession of being agricultural labourers engaged in paddy cultivation.

In Kerala and Haryana state, majority of the women agricultural labourers feel semi restricted to move outside house followed by no restriction of movement outside house. There are few women agricultural labourers in all the tehsils with restricted movement outside house. In both the states, it is found that majority of women agricultural labourers in Palakkad district of Kerala state spend their earnings along with their husband while in Karnal district of Haryana state the women agricultural labourers feel free to spend the money earned by themselves. In both the states, it is found that majority of women agricultural labourers in Palakkad district of Kerala state fully participate in household decision making while in Karnal district of Haryana state less than 10% women agricultural labourers fully participate in household decision making. Majority of women agricultural labourers in Karnal district of Haryana state partially participate in household decision making. It is found that with respect to discusses of personal problems in Kerala state, more than half of women agricultural labourers discusses their personal problems either with their husband or with their family, in both the states. Where as in Karnal district of Haryana more than half of women agricultural labourers discusses their personal problems either with their husband or with their friends/colleagues. Among both the states Kerala and Haryana, Palakkad district of Kerala state shows majority of women agricultural labourers suffer all kind of spousal violence while in Karnal district of Haryana state majority of women agricultural labourers suffer only abuses as spousal violence.

In Kerala and Haryana states, more than half of the women agricultural labourers gets 12 to 20 days of working days in a month during on season. The women agricultural labourers with less than 10 days of work in the paddy cultivation is higher in Kerala state than Haryana state. In both the states there is large difference in daily wages. However, the majority of women agricultural labourers of Palakkad district of Kerala state gets their daily wages in between Rs 225 to 300. Whereas in Karnal district of Haryana state majority of the women agricultural labourers gets daily wages less than Rs 225. In both the states majority of the women agricultural labourers enroll themselves in MGNREGS working during off season. It is also found that aged women and financially better women do not prefer to work during off season. While poor women agricultural labourers prefer to work in construction to earn higher in both the states. It is

also interesting to note that SHG in both the states are not functioning well. Majority of the women agricultural labourers the majority of the women agricultural labourers in Palakkad district of Kerala state have loan for medical and marriage purpose, in both the states. No loan is registered by women agricultural labourers for buy of any property in Haryana state while in Kerala state the loan taken under property are all for the renovation of house. It is noted in both the state that the women agricultural labourers are landless. In both the states, the majority of the women agricultural have no assets with them. Some of the women agricultural labourers have house in their name. This is mainly to get women centered loan at lowest interest. There are no Gold /Precious ornaments with the women agricultural labourers of both the states.

There is difference in case of diseases due to working in paddy fields in Kerala and Haryana states. In Palakkad district of Kerala state, the majority of the women agricultural labourers suffer from all the mentioned diseases, that is, Diseases group I, Diseases group II, Diseases group I and II and other diseases in Alathur, Chittur and Palakkad taluks. While in Haryana state half of the respondent women. agricultural labourers suffer from all the mentioned diseases, that is, Diseases group I, Diseases group II, Diseases group I and II and other diseases. While the majority of women agricultural labourers of Mannarkkad and Ottapalam taluks suffer from group II Diseases. In both the state there is difference in case of suffering from chronic diseases. paddy fields. In Palakkad district of Kerala state, the majority of the women agricultural labourers of Mannarkkad and Ottapalam suffer from respiratory diseases and arthritis, respectively. while in Karnal district of Haryana state, the majority of the women agricultural labourers suffer from respiratory diseases only.

In Kerala and Haryana states, the majority of the women agricultural labourers do have partial political awareness. On an average, less than 10% of the women agricultural labourers are not aware of politics in both Kerala and Haryana state. In both the states, the majority of the women agricultural labourers always caste their vote. do have partial political awareness. On an average, the proportion of women agricultural labourers those who sometimes caste their votes are less than 10% in Karnal district of Haryana state. Where as in Palakkad district of Kerala state, on an average the proportion of women agricultural labourers those who sometimes caste their votes are less than 5%. In both the states there is difference in case of participation in political campaigning of the women agricultural labourers. The majority of the women

agricultural labourers sometime go for political campaigning in Palakkad district of Kerala state. Where as in Karnal district of Haryana state the majority of the women agricultural labourers always participate in political campaigning.

The status dimension of women agricultural labourers of Kerala and Haryana state has been effectively analyzed by using multivariate factor analysis. There are 193 variables selected for the statistical analysis. They are the information collected from the primary survey of the women agricultural labourers in the major 7 subdivisions consists of 67 variables representing economic status, 17 variables show the personal status and 41 variables pertains to social status. Health status is described by 9 variables. political status represent 15 variables and 26 variables describes the status of farm mechanization, while 18 variables shows the living condition of women agricultural labourers of both the states. The secondary data, regarding the total number of female agricultural labourers, from census 2011, is also considered. Each village is selected from all the five taluk/Tehsils of the major rice producing district of both Kerala (Palakkad district) and Haryana (Karnal district) state. The entire interrelated variable in the data matrix of  $5 \times 193$  is used for statistical analysis for Kerala state as well as for Haryana state, separately.

The analysis reveals eight major dimensions, four from each State. The obtained dimensions in Palakkad district of Kerala state are:

1. The Dimension of status of living condition, Working condition and Health and safety.
2. The Dimension of the Time spent by the women agricultural labourers in the field, the Income they earned and expenditure over loans.
3. The Dimension of psycho-economic-distress and domestic violence and harassment.
4. The Dimension of Jettisoned impact of farm mechanization, reduced Man days and Low income among women agricultural labourers.

Spatial pattern of each dimension reveals high, medium and low problems of women agricultural labourers in all the taluks of Palakkad district of Kerala state. However, it will not give a complete image of the spatial pattern of complexity of the study area. Therefore, all the factor of women agricultural labourers and associated problems are taken into consideration to integrate them into five tehsils/taluks of Palakkad district of Kerala State.

The obtained dimensions in Karnal district of Haryana state are:

1. the Dimension of Paid employment status and rational position in the house which affect their involvement in decision-making and higher expenditure on food and nutrition.

2. The Dimension of illiteracy and ill socio-economic hegemony of the rural elite and associated problems.
3. The Dimension of status of living condition, displacement and health hazards and the burden of indebtedness.
4. The Dimension of socio-cultural constraints of Voting based on family interest, Husband spend the income earned, Family violence abusing, beating and other violence.

Spatial pattern of each dimension reveals high, medium and low problems of women agricultural labourers in all the taluks of Karnal district of Haryana state. However, it will not give a complete image of the spatial pattern of complexity of the study area. Therefore, all the factor of women agricultural labourers and associated problems are taken into consideration to integrate them into five tehsils/taluks of Palakkad district of Kerala State.

An Integrated Approach for Women Agricultural Labor's Welfare Plan of Kerala and Haryana State is being presented. The status of living condition, economic status, social status, health status, political status and farm mechanization status are integrated with each other for the overall development of women agricultural labourers at micro level in Palakkad district of Kerala state and Karnal district of Haryana state.

Regions with High Problems Associated with Women Agricultural Labourers in Palakkad District of Kerala State needs *Short term and long-term strategy by Government and Non-Governmental organizations to safeguard women agricultural labourers from diseases due to working in paddy field and security of income especially during off season. Need to promote small scale industry and cottage industry to provide supplementary sources of income, especially during off season.*

Regions with Moderate Problems Associated with Women Agricultural Labourers in Palakkad District of Kerala State needs *strategy planning by state government to include women agricultural women for farm mechanization training to regain the man days reduced to them and to have better income opportunity. Measures must be taken for extension training programmed for women agricultural labourers.*

Regions with Low Problems Associated with Women Agricultural Labourers in Palakkad District of Kerala State needs *to organize the women agricultural labourers to seize the discrepancy against them. Proper implementation of government grants and subsidies is the need of the hour to reach all the unorganized women agricultural labourers.*

Regions with High Problems Associated with Women Agricultural Labourers in Karnal District of Haryana State depicts *Illiteracy and cultural constraints being the highly diagnosed social evil among the women agricultural labourers needs to sort effectively at grass root level. For which State government must introduce strategy plans at Panchayat level. NGO can have representatives to give basic education and agricultural awareness to these women in their convenience and at their doorsteps.*

Regions with Moderate Problems Associated with Women Agricultural Labourers in Karnal districts of Haryana State needs *Reimbursement scheme and scholarship programs should be introduced to women agricultural labourers irrespective to age and caste bars and especially for economically poor section for basic Education. Agricultural policies and technological development Strategy must seek to eliminate drudgery women agricultural labourers, to ensure safety and security at work place, improve economic efficiency and wages.*

Regions with Low Problems Associated with Women Agricultural Labourers in Karnal District of Haryana State depicts *Both Governmental and Non-Governmental agencies to work together for the welfare of women agricultural labourers while coming up with policies that can directly benefit to the women agricultural labourers. Effective Plans for SHG can enroll women agricultural labourers during the offseason sustained livelihood of these poor, unrecognized and most deprived section of the society.*