



WOMEN'S ECONOMIC EMPOWERMENT IN BIHAR

Opportunities and Challenges



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Centre for Catalyzing Change's, *Sakshamaa*, or the Initiative for What Works, Bihar, aims to accelerate gender focused and evidence-based transformative policies for women and girls in Bihar.

Sakshamaa is supported by the Bill and Melinda Gates Foundation.

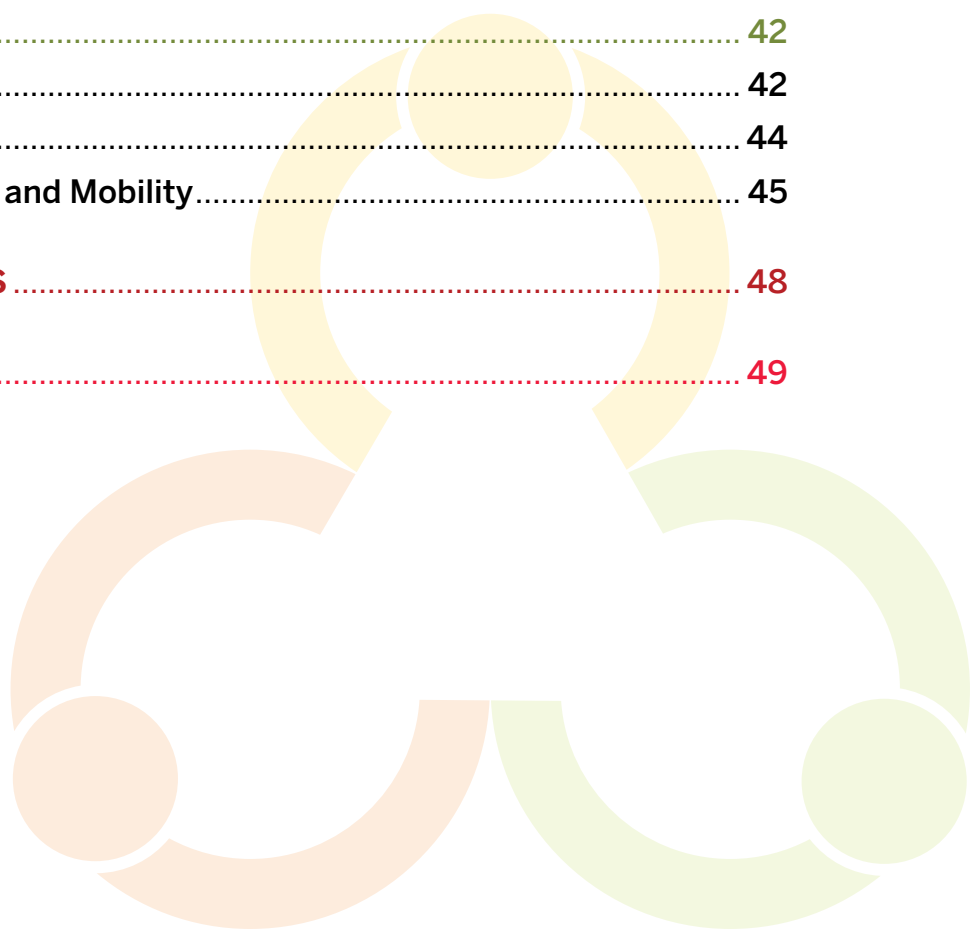
ABOUT C3

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Executive Summary

Bihar, the third most populous state of India, registers the lowest female labour force participation (LFP) in the country – with just 9% of women of working age in the labour force (World Bank 2016).¹ Alarming, there has been a sharp decline in women’s LFP in Bihar since 2005, mainly in rural areas where rates have dropped from 23% to 9%. While some decline in female LFP is expected with development, this argument does not appear to hold true for Bihar (as it does not for India). Labour force participation mostly exhibits a U-shaped relationship with income and education: at low levels of income and education, women work out of necessity and in poor quality jobs. As household incomes rise, women choose to drop out from the labour market as their reservation wage increases. While it is possible that women in Bihar have pulled out of the work force because of rising incomes in the past decade, attribution cannot be confirmed. Further, evidence suggests that very few educated women take up jobs when they realize that the returns to market

work are lower than the opportunity cost of being away from home and foregoing duties such as domestic chores and childcare. As such, arresting the declining labour force participation and strengthening women’s economic empowerment in Bihar – through good quality jobs, decent working conditions and equal wages – requires an examination of the prevailing challenges and opportunities for intervention in the state.

Women in Bihar want to work, and do not seem to be opting out of the labour market of their own volition. The National Sample Survey’s 68th round reveals that nearly 80% women above the age of 15 in Bihar were engaged in domestic duties in 2011-12. That is, they either attended to domestic duties only, or they attended to domestic duties and were also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving and so on, for household use. Yet a majority, about 68%, who were required to spend most of their time on domestic duties said they did so because

¹ Adult individuals (age 15 and above) are classified as part of the labour force if they are working (i.e. engaged in economic activity) or if they have been seeking work or have been available for work for a minimum of 6 months during the 365 days preceding the date of survey. This is otherwise known as the “usual status” definition of the labour force.

'no other member was available' to carry out these duties. Given a choice, about 39% of the women who were engaged in domestic duties in rural areas and 42% in urban areas said they were willing to accept work at their household premises, with the most preferred option being that of tailoring. Nearly all preferred to work on a regular basis, though most women wanted regular, "part time" work so they could also attend to their domestic chores.

Women may not be working because of a lack of 'suitable jobs': Women's declining work force participation in Bihar needs to be examined against three other broad patterns that make its economy distinct from other states. First, if one were to go by the NSS data, Bihar is still predominantly agrarian with 62% of its workers engaged in agriculture, and relatively fewer in non-farm activities. This proportion is even higher for women – 77% of the women who work in rural areas are involved in farming and 13% work in non-farm self-employment ventures. These statistics need to be juxtaposed with the fact that agriculture's share in the state domestic product has been declining. Further, Bihar has been witnessing a 'casualization' of its workforce with an increase in casual wage employment from 36% to 42% between 2005 and 2012, and a drop in the share of self-employed (from 60% to 53%). This trend does not bode well for women who prefer to be in agriculture or in self-employment, since both offer regular, but part-time work opportunities. Second, while job growth has been positive in Bihar – the state added about a million jobs between 2005 and 2012 – most jobs added have been in the construction sector, which is worse as an option than self-employment for women. Finally, while MGNREGA has been an option for women in rural areas, there has been a decline in overall work provided under the scheme from an average of 42 days in FY 2013-14 to about 35 days per household in FY 2017-18.

The Government of Bihar (GoB) is committed to increasing women's employment and has invested extensively in health and education schemes for women and girls. *Aarakshit Rozgar*

The Periodic Labour Force Survey (2017-18) of the Government of India again showed a marked decline in women's engagement in the economy in Bihar

- In rural Bihar, women's Labour Force Participation Rate is 3.9%, whereas in urban areas it is 6.4% (Age 15+, Usual Status; ps+ss).
- Rural Bihar's Worker Population Ratio is also very low at 3.8%, whereas in urban areas it is 6% (Age 15+, Usual Status; ps+ss).

LFPR: Labour Force Participation Rate (LFPR) is defined as the number of persons in the labour force per 1000 persons.

WPR: Worker Population Ratio (WPR) is defined as the number of persons employed per 1000 persons.

The discrepancy between the LFPR and WPR indicates the levels of unemployment.

Mahilaon Ka Adhikar (Assured Employment is the Right of Women), is one of the *Saat Nischays* (Seven Resolves) of the state government. The government has been working on the agenda of women's work, both through its multiple schemes for the girl child, and its program of developing self-managed community institutions of women (Jeevika). In addition, the state's Women Development Corporation (WDC), the nodal agency for implementing women development programmes, also runs several programmes for women's empowerment including the Mukhya Mantri Nari Shakti Yojana (MNSY) which aims to empower women economically, socially and culturally.

This report provides suggestions on how the Government of Bihar can enhance women's work opportunities, and in the process strengthen women's economic empowerment. Specifically, it suggests a few programs that can help further women's employment in sectors such as agriculture and allied activities around it (e.g. dairy), the formal salaried sector, in self-employment ventures, and in traditional and a few non traditional occupations. To do so, the report

draws on 3-4 promising schemes and interventions from other states in India that have the potential to be adapted for and piloted in Bihar. It also draws on a few consultations and interviews undertaken with program champions to understand the obstacles they faced while implementing these programs, and how they overcame them.

The report deliberately distinguishes between interventions to further labour force participation and those that can increase women's economic empowerment.

Empowerment can be viewed broadly as increasing women's freedom of choice and action to shape their own lives (Narayan 2002). In a context where women's freedom, even of movement, is shaped by norms of patriarchy, improving women's participation in the labour force may not necessarily empower them, for example, to use their income how they would want. In such a context, women may end up taking lower, mostly informal and unpaid roles in the value chain, while men dominate the more formal jobs. Economic empowerment, then, calls for a much broader approach. It requires, in the words of Narayan (2005), an expansion in women's assets and capabilities so they can participate in, negotiate with, influence, and control institutions, such as the market. Under such an approach merely getting more women to work does not suffice. Instead, more enabling interventions are required to expand women's agency, their skills, amplify their collective voice and organization, and improving their access to assets, particularly financial assets. An institutional climate which can help further women's economic empowerment also needs to be created, for example by increasing women's digital literacy (which can help improve their access to information) and by creating safe public spaces (which can improve social norms around women's physical movement and can help them reach work where available). This report also talks about such enabling investments.

In a significantly agrarian context such as Bihar, the primary push for increasing women's employment needs to come from the agriculture and animal husbandry sectors. With more men migrating out of rural Bihar, women are engaging in arduous agricultural labour taking



77% of the women who work in rural areas are involved in farming

up jobs, which were earlier not done by them (e.g. ploughing and digging). Yet, evidence suggests that the wages paid to them are lower than those paid to men (SEWA Bharat 2014). The GoB can initiate a study of wage rates paid to women, and target MGNREGA to areas where agricultural employment is scarce or where wages are very low. For women working on their own farms, access to credit is a significant constraint. The government may consider targeting Kisan Credit Cards to them so they can avail of crop loans in a flexible and cost effective manner. Promising models, which provide training and financial assistance, can also be implemented. Such efforts need to be evaluated to study what worked for them, and how such initiatives can be scaled-up. Bihar has a large population of milch cattle tended mostly by women; their 'unpaid' work needs to be monetized. Bihar is only behind Uttar Pradesh, Rajasthan and Madhya Pradesh in the numbers of milch cattle that it has. Further, such cattle are owned mostly by small and marginal

farmer households, and are tended to by their women. Unfortunately, women engage in the less visible work of cleaning, collecting fodder, making cow dung cakes etc. while men do the more visible work of milking and marketing. Importantly, studies show that giving women control over the cattle results in nutritional benefits for the household, more so for children, as they keep a significant amount of milk procured for domestic use. A push on the dairy sector, therefore, can open up employment avenues for women in rural areas, resulting in wider household benefits.

The Bihar State Milk Co-operative Federation Ltd (COMFED) or Sudha has expanded women only dairy cooperatives, but more work is required to build their capacity and reach. In March 2017, Bihar had 538 women only dairy cooperatives involving slightly more than 17,000 female milch farmers. A recent assessment shows that these cooperatives have led to many benefits for their members. Women speak of increases in their income as well as empowering effects on their daily lives: being able to spend more freely, including on their children's nutrition, having more say in family planning, in exercising their voting right, and being more vocal, particularly when interacting with government officials. Another positive externality has been a reduction in cases of social discrimination (WDC 2018). However, constraints remain. Most women want access to loans to buy cattle but are unaware of schemes that would give them such loans. They also work with rudimentary facilities for milk collection and lack extension services for their cattle. COMFED needs to invest in facilities, which can aid automatic weighing of the milk and test its quality including fat and SNF percent. This will also facilitate transparent payment. It needs to scale up artificial insemination (AI) interventions

An institutional climate which can help further women's economic empowerment also needs to be created by increasing women's digital literacy and safe public spaces

through convergence with the "Gavya Vikas Yojana", and employ more Mahila Sudha Mitras who can help women avail such extension services. On the marketing side, Sudha's product range needs to expand. Finally, COMFED must invest in process efficiency improvements. Currently, payments to members are not regular in all districts (WDC, 2018).

Women's employment prospects in the secondary and tertiary sectors need consideration, but a majority of women tend to work outside of this 'formal' job market, in the informal space.

A few primary surveys such as those undertaken by SEWA-IHD, indicate that the bulk of women workers in Bihar, outside of the primary sector, work in the informal economy. They estimate that there are nearly 13 million women in the informal sector in Bihar, whose work is neither recognized, nor rewarded. This is because in the case of informal work, there is no clear employer-employee relationship, no contracts, no regular timings and the workplace is very often a woman's home itself (SEWA Bharat, 2014: page 23). Such work in Bihar includes women making agarbattis, baskets of soop, rolling bidis, making papad, lac bangles and women weaving. Further, such work tends to occur in clusters e.g. Muslim women rolling masala



or the doughy mixture on to agarbatti sticks in their homes in Gaya; women weaving in Bhagalpur; women working on Mithila paintings in Madhubani; women involved in the Sujani quilting tradition in Muzzafarpur and so on. What this indicates is that with a certain targeted initiatives and support, small clusters of women's work can be formed and solidified.

The informal sector has significant potential to push women's economic empowerment. To do so, and as a first step, a statistical exercise on the number of women involved in domestic work but willing to take paid employment, their earnings, work conditions, etc. should be initiated. Once the GoB has such data, action may be considered on the following lines for different groups of workers. For example, women doing home based contractual work (e.g. rolling bidis or making agarbattis) may be linked to social security schemes. The Labour Department should publicize the minimum wage thresholds set by the state. The government can also consider placing such women in groups, issuing them with ID cards and setting up a contributory welfare fund, accessible to all members. Investments may be made to improve productivity of such self-employed ventures. New avenues of self-employment may also be considered by replicating models that have worked in other states (e.g. making handmade paper bags or solar cookers).

Female employment in salaried jobs is very low, but can be pushed in some sectors. The Government of Bihar, on its part, is trying to open avenues for women in formal employment through 35% reservation for women in government jobs in the state, at all levels. One possible area for private hiring is the banking sector. It has been established that female clients are able to use their accounts better if interacting with women, both those who are hired as bank employees and those who operate as financial intermediaries. Role models such as women employed in police stations, as taxi drivers, petrol pump operators, or in railway stations – all traditional male bastions – may help break social restrictions and norms around women's work.



Women in Bihar are not part of the financial mainstream. The introduction of Jan Dhan accounts has not alleviated the situation – many of these accounts remain inactive

However, all of these efforts may come to naught if women do not have information about them. To enable women access these opportunities, special counselling sessions may be organized for ITI female students through Career Guidance Counselling Centres (CGCCs). Women only job fairs may also be considered in partnership with vocational skill providers and private companies.

Women in Bihar are not part of the financial mainstream. The introduction of Government of India's Jan Dhan accounts has not alleviated the situation – many of these accounts remain inactive. At 48%, India has about twice the average of 25% (for developing economies) of inactive bank accounts, reports the Global Findex 2017. Lack of sex-disaggregated data on the credit



The Telecom Regulatory Authority of India estimates that only

30% of India's online users are women

given by financial institutions serves as a major handicap to solving this problem. A first step may therefore be collecting such data. Specific gender constraints such as rural women's inability to fulfill KYC norms may be identified and redesigned. GoB may also consider reducing the distance between banks and female customers by employing more female banking correspondents, increasing women's financial literacy and harnessing the power of technology to reach more women through mobile banking.

Technology plays a key role in women's empowerment. Digital literacy is the first step towards enabling women to access technology for education and employment. However, the Telecom Regulatory Authority of India estimates that only 30% of India's online users are women. In rural areas, this number drops to 12%. Digital literacy programs at scale can be designed to reach adolescent girls and women.

Safety of women needs to be ensured. Data released by the NCRB in 2016 showed Bihar at the eleventh position among all states and Union Territories in terms of crimes against women. In 2014, the state was ranked eighth.

The State Government launched a "safe city surveillance" system in 2017 across Bihar, to check sexual harassment and crime. The MNSY has also contributed to the safety agenda for women through interventions such as a Women's Helpline and Short Stay Homes. Going forward, the GoB may consider investing in infrastructure improvements such as street lighting, safer toilets for women and girls, strengthening its basic policing and law and order management – all of which impact safety levels for women. It may also invest in introducing mobile applications such as the Himmat app, an initiative by the Delhi police for women in distress. Ultimately, however, a more effective engagement may be needed through programs and campaigns that shift underlying norms around gender in the state.

This report identifies scarcity of suitable jobs as a key explanation for the low and declining female labour force participation in Bihar. To address this gap, the remedy needs to come from creating new job opportunities, including regular part time jobs, especially in newly-urbanizing areas. Constraints on sectors that draw in female workers in Bihar, such as dairy, need to be removed. Women's self-employment ventures also need to be encouraged, given that they prefer such employment. Simultaneously, "supply-side" interventions such as those around girls' education need to continue. However, Bihar also needs to provide facilitating factors, for more educated women to join the formal workforce. These include policies around childcare facilities at the work place, maternity leave, pushing women's financial inclusion and financial and digital literacy, and more emphasis on safety. Finally, norms around women's work need to change. The government could signal a more enabling vision for women through public information campaigns that emphasize delaying marriage and valuing women as workers. ■

Study Objectives

1.1. BACKGROUND

Bihar is one of the faster growing low-income states in India, but large parts of the state remain very poor. Bihar has emerged as one of the fastest growing 'low-income states' in recent years with the state's GDP growing at an annual rate of 10-15%, significantly higher than the average recorded for India. Consumption inequality, as measured by the Gini coefficient, has also not risen in the period of higher growth. Moreover, the pace of poverty reduction has picked up significantly since 2005, with the percentage of population living below the poverty line declining from 55% in 2005 to 34% in 2012. Despite these positive trends, a disproportionate share of India's poor continues to live in Bihar. Bihar is India's third most populous state, home to over 100 million people, 36 million of whom are poor. Analysts worry that growth in Bihar is driven mainly by services, but fluctuations in agricultural output put these growth trends at risk.

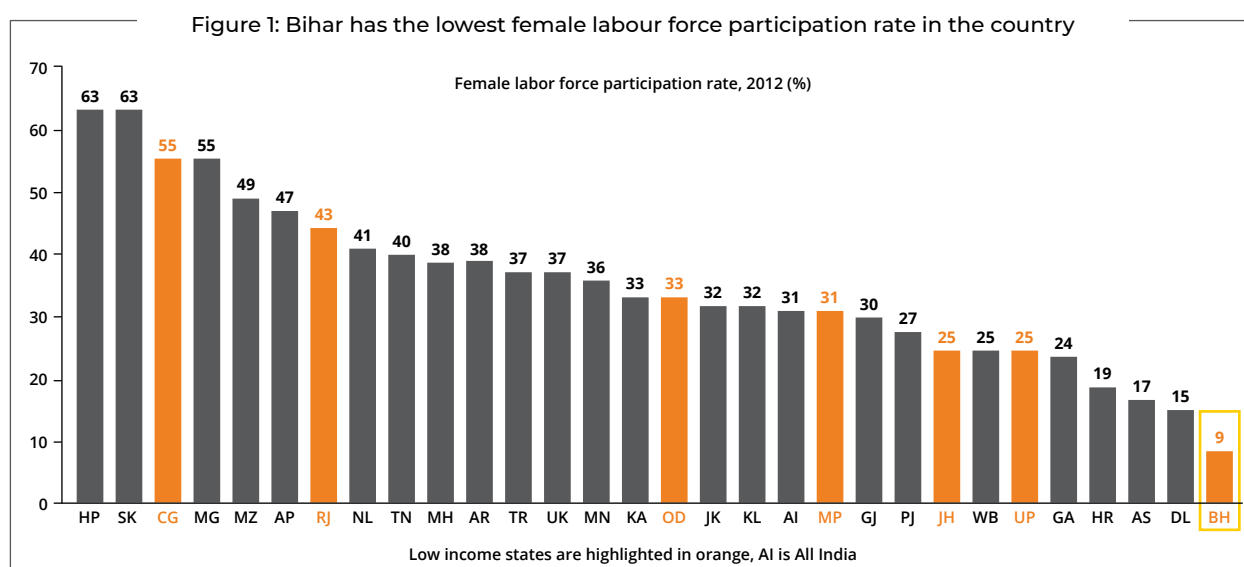
There is growing evidence, around the world, that women's participation in the economy can lead

to gains in economic growth and boost women's sense of agency and empowerment. Recently at Davos, IMF chief Christian Lagarde, quoting IMF research, said that women's participation in the workforce to the level of men can boost the Indian economy by 27%.² Besides its impact on growth, paid employment is known to increase women's personal agency and status, both within the home and outside (Dollar and Gatti, 1999; Loko and Diouf, 2009). Money gives women a sense of empowerment with their husbands, higher levels of decision-making power within their households, and higher levels of mobility. Women who participate in the labour force marry and have children later, and their children stay in school longer (Sivasankaran, 2014). There is also evidence to suggest that working women invest more in schooling and better nutrition for their children (Qian 2008 and Aguirre et al. 2012). Bihar has an abysmal number of women in the workforce, registering the lowest female labour force participation in the country. In 2012, according to the data collected by the National Sample Survey (NSS), about 9% of women of

2. <https://indianexpress.com/article/india/india-news-india/indias-income-will-go-up-by-27-per-cent-with-women-participation-christine-lagarde-4376114/>

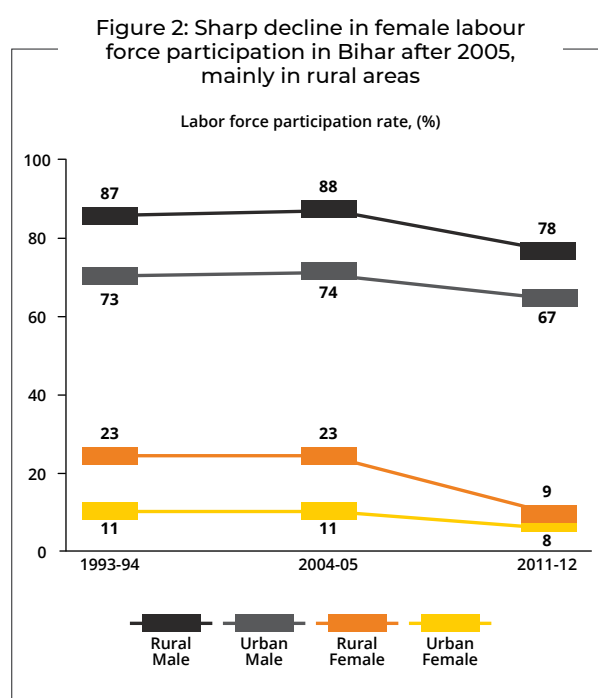
working age in Bihar were in the labour force³. This is significantly lower than the overall female labour force participation rate (LFPR) for India (27%), and also lower than rates for other low income states (Chhattisgarh- 55%, Rajasthan – 43%, Odisha -33%, Madhya Pradesh (MP)-31%, Jharkhand-25%, and Uttar Pradesh-25%) (See Figure 1). This is also significantly lower than the labour force participation rate for men (78% in rural Bihar and 67% in urban Bihar in 2011-12).

incomes may allow women to stay at home, a preferred household choice in a predominantly patriarchal society. Women may also move out of the labour force to spend more time on care duties, more so in urban areas where lack of crèches and institutional child support, increased nuclearization of families and constraints on mobility given concerns around safety leave them with no choice but to stay at home. However, as incomes increase



Worse, there has been a sharp decline in women’s LFPR in Bihar after 2005, mainly in rural areas where rates have dropped from 23% to 9% (Figure 2). The decline in rural female LFPR has been in consonance with the decline in rural female labour force participation across India over the same period (from 49% to 36%), but as the numbers suggest, the decline has been much sharper in Bihar.

Some decline in female LFPR can be expected with development. Labour force participation is mostly seen as exhibiting a U-shaped relationship with income and education: at low levels of income and education, women mostly work out of necessity and in poor quality jobs. As household incomes rise, women may choose to drop out from the labour market as their reservation wage increases. Higher rural



3. Adult individuals (age 15 and above) are classified as part of the labour force if they are working (i.e. engaged in economic activity) or if they have been seeking work or have been available for work for a minimum of 6 months during the 365 days preceding the date of survey. This is otherwise known as the “usual status” definition of the labour force.

further, the economy develops, the service sector expands, and fertility rates decline, LFPR may rise especially among educated women. A large body of academic work has explained the decline in female LFPR in India using such 'supply side explanations' [see for instance, Olsen (2006), Chowdhury (2011), Neff, Sen and Kling (2012), Himanshu (2011), Rangarajan, Iyer and Kaul (2011), Klassen and Peters (2013), Afridi, Dinkelmann and Mahajan (2016), Sorsa et al (2015) and Sudarshan and Bhattacharya (2009)].

Incomes have risen, but they alone cannot explain a fall in rural female labour force participation. Bihar is one of the fastest growing states in India and per capita incomes have been steadily rising. Therefore, it is possible that women are pulling out of the labour force, affording more time for care duties and leisure. However, attribution cannot be confirmed. In fact, according to Chatterjee, Murgai and Rama (2015), a near doubling of average wages in real terms between 2005 and 2012 in India, may have been associated with only a modest decline in female LFPR in rural and urban areas (3.4 and 2.5 percentage points respectively) – far lower than the large 13 percentage point fall in rural female LFPR that occurred in India during this period (from 49% to 36%).

The education argument is also problematic. In Bihar, arguments have been made on how state programs like the Mukhyamantri Cycle Yojana have helped increase enrolment of girls in schools, and therefore delay the age at which they marry and/or join the labour force (see for example Muralidharan and Prakash, 2013). This argument, however, is problematic for two reasons. First, educated women may want to pull out of the workforce and spend more time in domestic work and childcare, if they realize that the returns to domestic work are more relative to what they will get if they engage in market work (including the costs of travel, and the opportunity cost of being away from home). In fact, evidence suggests that higher education does not seem to improve labour market outcomes for women. Among the women

Bihar is still predominantly agrarian with
62% **of its workers engaged in agriculture**

who were employed in India in 2011-12, only 16% had completed their secondary education and/or obtained a certificate, diploma, graduate or postgraduate degree. By contrast, illiterate women were almost three times as likely to hold jobs. Second, girls' staying longer in schools can only account for younger women dropping out of the labour force. Instead, the pattern of decline in LFPR between 2004-05 and 2011-12 has been uniform across women of all age groups.

Another theory that is used to explain the puzzle of declining rural female LFPR is mismeasurement of women's work. Challenges with measurement imply that many more women might be working than suggested by the official numbers. Some studies, for example, have challenged the 'ridiculously low' female labour force participation rates reported by the official, National Sample Surveys (NSS) in Bihar. This contradicts evidence from small areas studies as well as eyewitness accounts of those who have done fieldwork in Bihar. To quote a study carried out by the Self Employed Women's Association (SEWA) and the Institute of Human Development (IHD): "We see that almost all women in rural areas in Bihar seem to be working, either on their own fields or on other's fields or looking after cattle or other animals; with the exception of upper-caste women and those from comfortably-off, land-owning families" (SEWA Bharat, 2014). According to a primary survey undertaken by the Institute of Human Development (IHD), women's workforce participation rate stands at 56 per cent, which is several times higher than the numbers given by the official surveys (Mehta, 2012).

To some extent the divergence between NSS and data obtained from independent surveys can be explained by further examining the group of

women reporting themselves as being involved in domestic duties (about 60%) in the NSS. Women, who were involved in some economic, 'unpaid work' like free collection of goods like vegetable, roots, firewood, cattle-feed and sewing, tailoring, weaving etc. for the household, apart from domestic duties, constitute around one-third of the non-working population. Instead of being enumerated as workers, as is required, these women report themselves as, and are enumerated as, non-workers. This is also because such unpaid work is categorized into subsidiary activities, not primary work which is picked up by the NSS. If this group is included within the working group, the workforce participation rate goes up substantially even with NSS data. Such reporting, however, requires investigator time to probe and get a more detailed picture of how women spend their days in rural Bihar.

This theory also coheres with employment indicators from the population Censuses of 2001 and 2011, which show only a small decline in female LFPR in rural areas compared to the decline reported in the NSS. The difference lies in the manner in which the Census and NSS define unemployment: the Census does not require a person to have been searching for a job for at least 6 months during the year, as the NSS does. This less stringent definition results in a much higher unemployment rate in rural areas in the Census in 2011. If unemployment was indeed high in rural areas, it suggests that not all decline in female LFPR was voluntary.

Debates on measurement aside, what appears more realistic as an explanation for low rural female LFPRs is a possible decline in the number of 'suitable jobs' available for women.

According to a primary survey undertaken by the Institute of Human Development (IHD), women's workforce participation rate stands at 56 per cent

Chatterjee, Murgai and Rama (2015) argue that beyond the income effect and other supply side issues, the main driver of the decline in female labour force participation rates is the lack of 'suitable' job opportunities for women at the local level. In a traditional society where women's work is considered acceptable only if it takes place in environments perceived as safe, female labour force participation rates can be expected to depend on availability of jobs which are "at home" or "close to home". Jobs in agriculture offer that advantage. Between 2005 and 2012, however, the number of farm jobs dropped dramatically in India, without a parallel emergence of regular jobs in offices and factories. Relatively few, regular salaried jobs were created in this period, and four of every five such jobs went to men. As farm jobs became fewer, employment in the non-farm sector increased as did the share of mechanized agriculture, both sectors traditionally employing men. Casual work in construction (which offers higher earnings compared to farm labour) absorbed some of the women exiting agriculture, with a significant contribution from the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) which in 2012 accounted for over a third of the female construction workers (for more such 'demand-side' explanations, see Chand

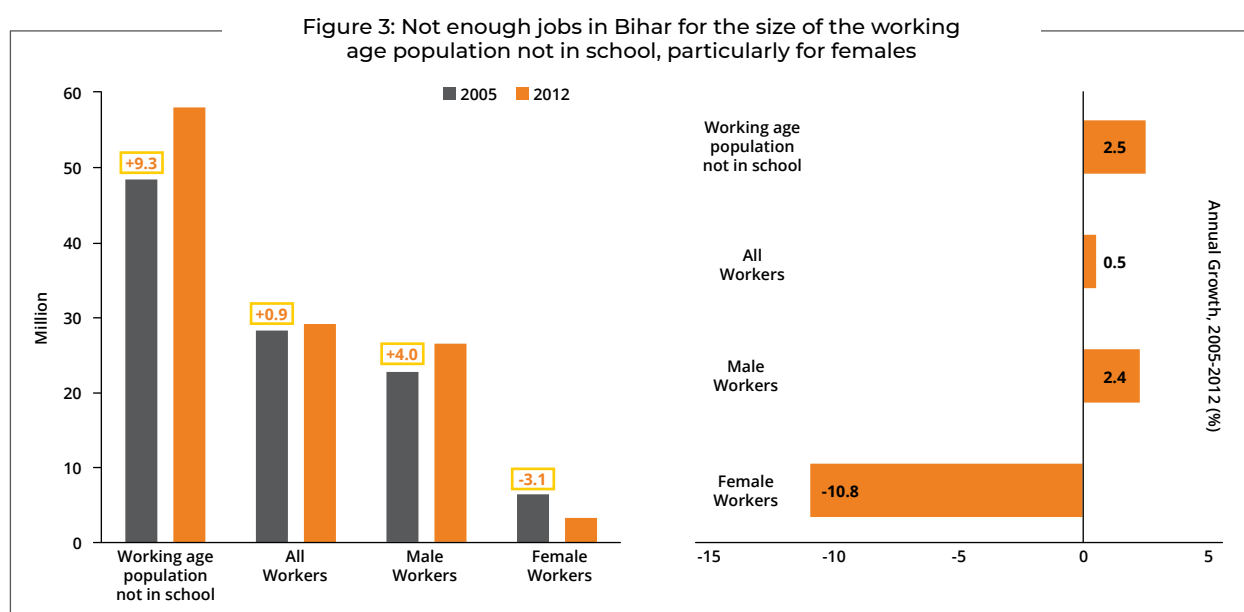


and Srivastava (2014), Kapsos, Silberman and Bourmpoula (2014), Lahoti and Swaminathan (2016) and Mehrotra and Sinha (2017)).

The dearth of 'suitable jobs' for women seems to be particularly marked in the case of Bihar. Between 2005 and 2012, the working age population of females not in school declined in Bihar. The fact that even the fewer number of women of working age out of school did not end up joining the labour force means that the number of jobs for women have not grown commensurately (see Figure 3). While job growth has been positive in Bihar, it has not been as high as in other states: Bihar added about a million jobs between 2005 and 2012⁴, but this amounts to only 0.5% annual job growth in this period.⁵ In comparison, states like Rajasthan and Chhattisgarh have added jobs at an annualised

scheme has been good for women. However, comparisons with other states suggest that there are still constraints to women participating in the scheme (see Box 1 on MGNREGS).

Female labour force participation rates are low across urban areas in India and Bihar is no exception. Urban female labour force participation rates have been traditionally low in Bihar but declined further between 2005 and 2012, from 11% to 8% (see Figure 2). A few explanations may be advanced for these abysmal levels. For one, except for Patna and a few B-class centres and towns, there are not many urban pockets in Bihar. Besides the women who have been brought up and have lived in these urban centres, the others who reside there have either moved on account of marriage or migrated with their husbands in search of work. Unlike rural areas,



rate of 1.1% and 1.6% respectively over the same period. Further, most jobs added after 2005 have been in the construction sector – which offers casual wages and is worse as an option than self-employment for women. In rural areas, MGNREGS has offered a recourse to women; overall, women in Bihar seem to be getting a higher share of MGNREGS work than of casual wage labour, which suggests that the

however, these urban centres afford few work opportunities for these women that mimic what the farm does i.e. provide an area of work that is close to their home, is physically accessible, and has suitable working hours, allowing them to take care of their household duties. Given nuclear family arrangements in urban areas, and lack of availability of safe crèches for children, women think twice about taking up work that is far from

4. The number of jobs/workers is arrived at by applying worker participation rates to population estimates. The 'number of jobs' estimate corresponds to the 'number of workers'.

5. Job growth over a certain period is the compounded annual growth rate (CAGR).



Most jobs added after 2005 have been in the construction sector, which offers irregular wages

their home and needs them to travel a significant distance at a price.

The issue of safety also appears to be a barrier, and while concerns around it are usually driven by isolated incidents of crimes against women, data suggest that these apprehensions are not unfounded. There appears to have been a marked upward trend in crime against women in Bihar. A Gender Vulnerability Index compiled by Plan India and released by the Ministry of Women and Child Development ranks Bihar along with Uttar Pradesh, Jharkhand and Delhi as highly vulnerable for women (Plan International, 2018). Crime against women have also increased sharply in the state in last seven years. According to data available with the state police headquarters, altogether 12,783 cases of crime against women including rape, kidnapping and molestation were reported in the state in 2016 against 6,790 in 2010. In Patna alone such cases have increased from 1,031 in 2014, to 1,340 in 2015 and 1,284 in 2016 (NCRB, 2017).

Given these obstacles, many women in cities remain constrained to their homes and bear

Women's Participation in MGNREGS in Bihar

Women's person days as a share of total person days worked under MGNREGS in Bihar has improved over time (from 35% in FY 2013-14 to 46% in FY 2017-18), but it remains lower than the average for all India (53% in FY 2017-18), though better than in other low income states for the same year (Uttar Pradesh 35%, Jharkhand 37%, Madhya Pradesh 37% and Odisha 42%). Chhattisgarh (50%) and Rajasthan (65%) do better.

However, when compared to other high-income states, women in Bihar still get a lower share of available work under MGNREGS than men. It may be conjectured that women may be less aware of their rights and less empowered to demand work in poorer states like Bihar, than say, in Kerala.

What is worrying, however, is the decline in overall work provided under MGNREGS in Bihar – from an average of 42 days in FY 2013-14 to about 35 days per household in FY 2017-18. In other states, and for India as a whole, this average has either increased or remained stable at similar levels as in FY 2013-14. Lesser work available under MGNREGS, overall, also means lesser work for women.

the disproportionate burden of urban poverty. Bihar has seen rapid and unplanned urbanization in recent years. The steep growth of urban population in the limited urban living space available has had a visible impact on the quality of life of the urban slum dwellers of the cities and towns in Bihar. A recent family survey carried out in 122 Urban Local Bodies (ULBs) by the Department of Urban Development and Housing, Government of Bihar (GoB), for example estimated that Bihar has an urban poverty of 41.2% (Gender Resource Centre, GoB, 2018). The burden of this poverty, and associated lack of infrastructure and services, falls on women for whom daily domestic and care activities like filling water and accessing sanitation facilities outside the house start taking up disproportionate amounts of time and energy. Further, unlike rural areas where they can

Figure 4: Farming is the main activity for women (and men) in rural Bihar

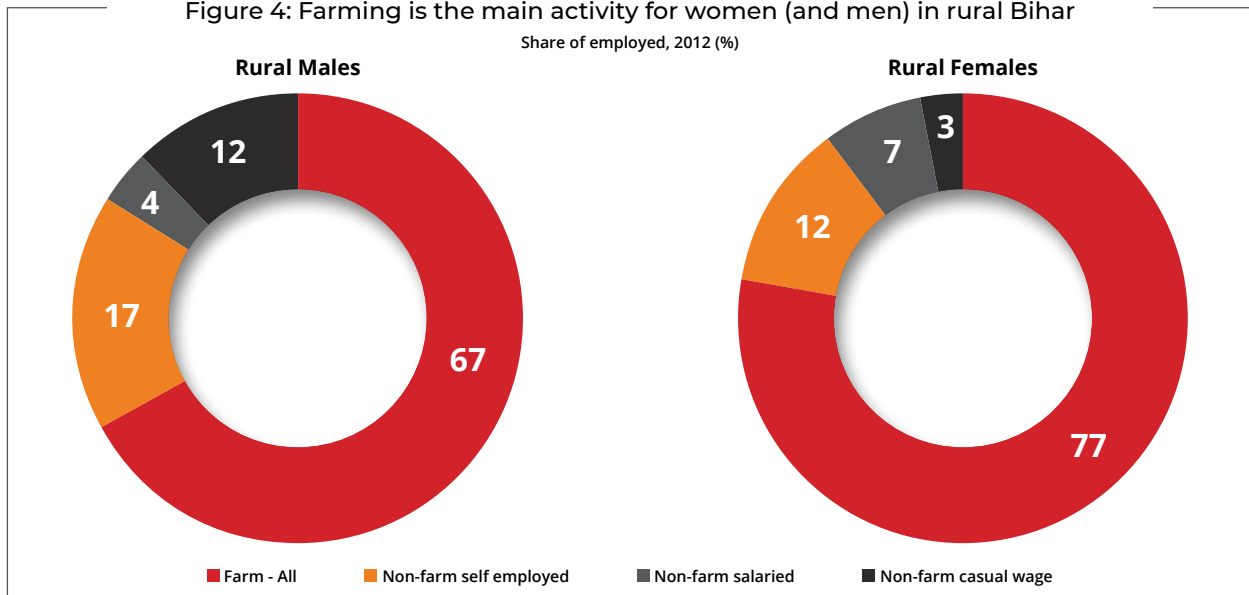
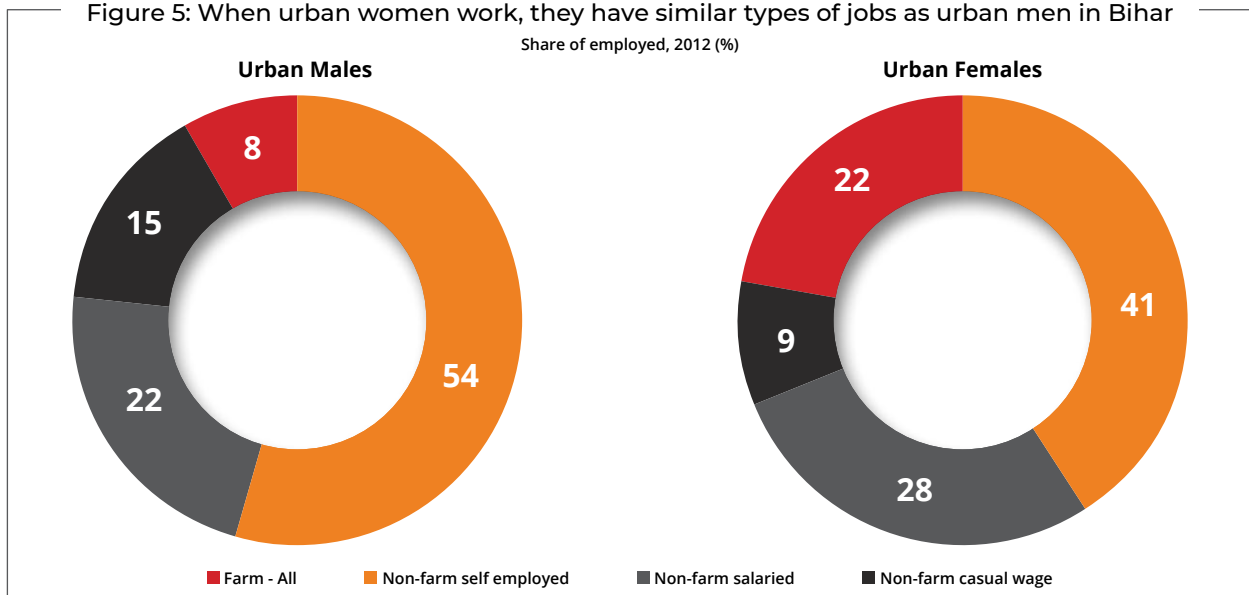


Figure 5: When urban women work, they have similar types of jobs as urban men in Bihar



depend on land for subsistence activities, women need to step out to find waged employment, which becomes difficult for the reasons mentioned above. Most women therefore end up working in lower quality, more precarious forms of paid work, as the cheapest labour in the value chain, in part so they can reconcile with their primary responsibility for unpaid domestic and care work, for which they have no one to rely on. Poverty becomes increasingly 'feminized' in an urban context (UNFPA, 2012).

What is the nature of work that women undertake in rural and urban Bihar? And how

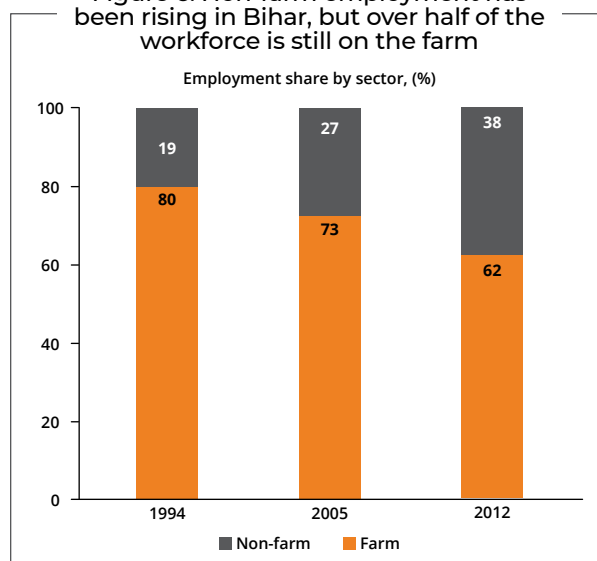
does it compare to the work that men do? Amongst the women who are working in rural areas in Bihar, farming is the main activity for 77%; around 12% women are self-employed in the non-farm sector, 7% are in salaried jobs, and another 3% work for casual wage (see Figure 4). In comparison, although a majority of rural men work on the farms, a greater proportion of them are engaged in the non-farm sector than women.

When urban women work – and very few do – they have similar types of jobs as urban men in Bihar. A significant number of them are in the non-farm self-employed category (41%), some are in salaried

jobs (28%), 22% are engaged in farming and 9% work for casual wage. The distribution of men across types of jobs in urban areas looks similar (Figure 5). A number of men are involved in small businesses or working in offices. Other significant employments include hawking, rickshaw or 'thela' pulling. Both men and women work as municipal sweepers and rag pickers. Many women from the slums are employed as domestic workers.

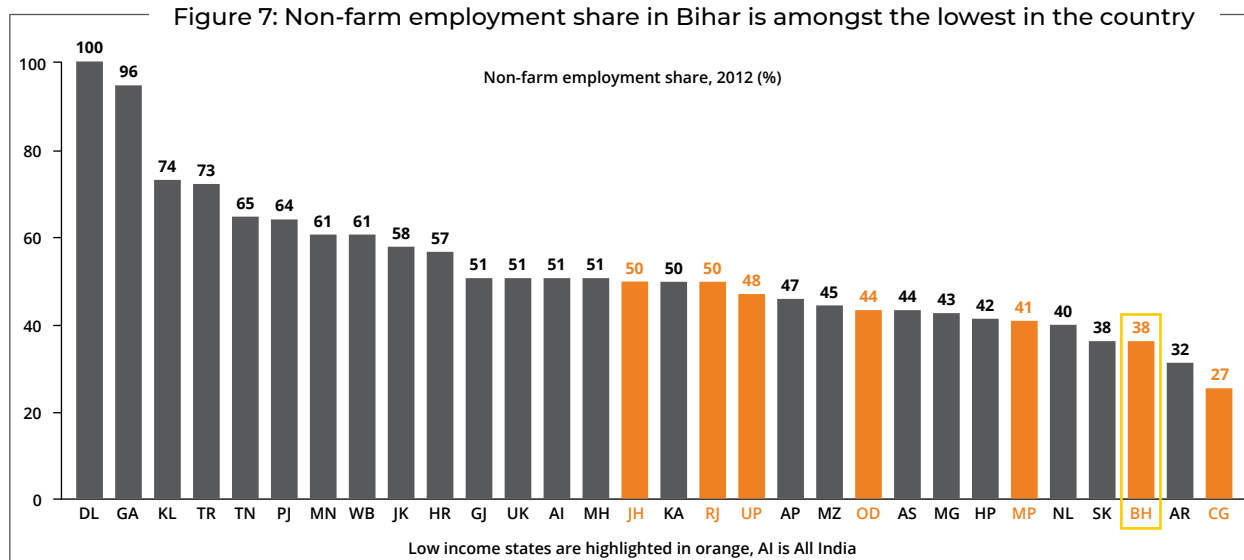
While the percentage of families with a woman as the main income earner varies across towns and between slums, and while women maintain, more or less, similar jobs as men, women labourers are found to be paid significantly less than their male counterparts. This further deepens

Figure 6: Non-farm employment has been rising in Bihar, but over half of the workforce is still on the farm



Source: World Bank, 2016

Figure 7: Non-farm employment share in Bihar is amongst the lowest in the country



Source: World Bank, 2016

poverty among female-headed households, many of whom tend to eke out a living working in the informal sector (for example as domestic servants) and are ranked among the poorest in urban settlements.

Women's declining work force participation in Bihar needs to be studied against two other broad patterns that make Bihar's economy distinct from other states. First, a majority of men and women in the state remain engaged in farming. In a context where there has been a shift towards the non-farm sector nationwide, Bihar appears as an outlier. It remains a predominantly

agrarian economy, with about 62% of its workers engaged in agriculture (Figure 6). This is significantly higher than the average for India (49% in 2012). While the share of non-farm employment has been rising in Bihar (from 19% in 1994 to 27% in 2005 to 38% in 2012), it is amongst the lowest in the country (in only Arunachal Pradesh and Chhattisgarh does the non-farm sector contribute to lower shares of employment, respectively 32% and 27% in 2011-12) (see Figure 7).⁶

There has also been an increased 'casualization' of the workforce. In a worrying

6. The average for India is 51%.

trend, among the workers who are employed, there has been a reduction in the share of self-employed (60% of employed workers in 2005 to 53% in 2012) towards casual wage labour (which comprised 36% of total employment in 2005 and had increased to 42% of total employment in 2012) (Figure 8). Salaried jobs in Bihar account for a very small proportion of total employment. In fact, the share of salaried jobs among those employed is the lowest in the country – about 6% of total employment in 2012 (Figure 9).⁷

On other indicators of women’s empowerment, besides labour force participation, Bihar throws up a mixed picture. For example, on

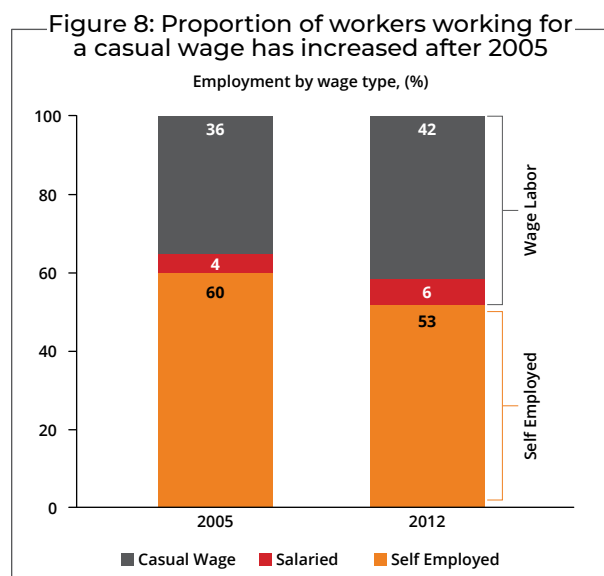
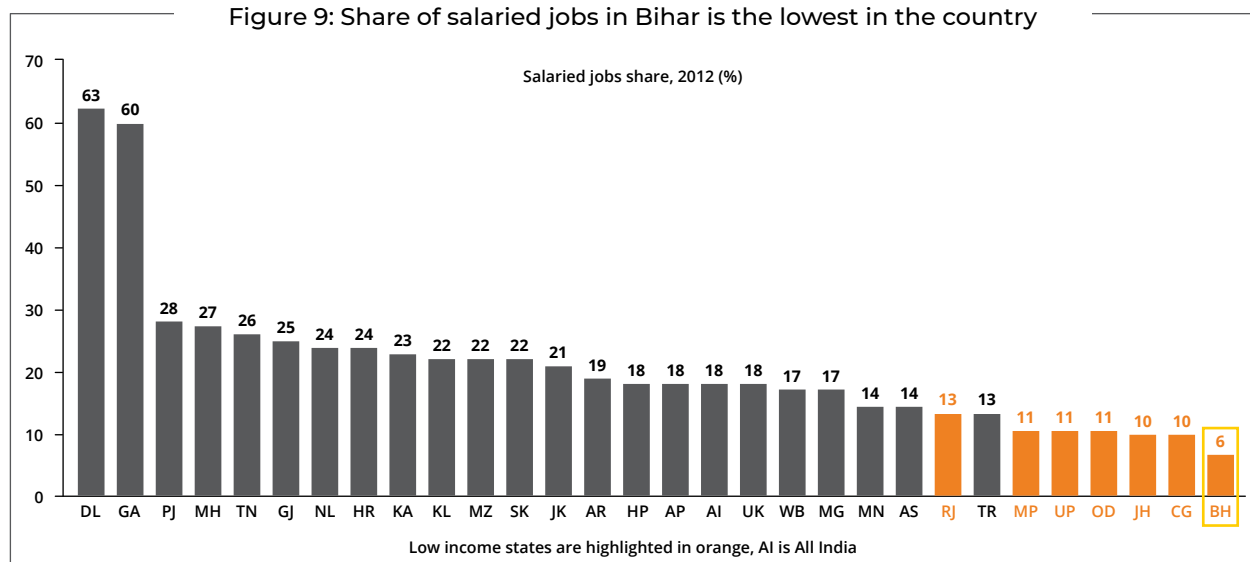


Figure 9: Share of salaried jobs in Bihar is the lowest in the country



indicators of education, there is still significant room for improvement with about 47.8% women surveyed by the National Family Health Survey (NFHS)-4 reporting that they have had no schooling.

In fact, there remains a significant gender disparity in education in Bihar particularly among adults, with about one in every two adult women not having attended school ever, in comparison to one in every three men. Women in urban areas fare slightly better as compared

to their counterparts in villages – only 30% in the NSS (2011-12) said they did not attend schools compared to 60% women in rural areas. On the other hand, women’s ownership of assets like a house or land or a mobile phone is either comparable to the India average or even better (see Table 1), with ownership of house/land being driven by the government’s allotment of patta to women for the Indira Awas Yojana. However, because of poor literacy, few women say they can use mobile phones, read SMS etc.

⁷ Classification of workers by wage-type: (i) Self-employed – Own account workers, employers and unpaid family workers; (ii) Salaried – workers with regular salary; (iii) Casual wage – workers with causal wages. The average share of salaried jobs in total employment across India is 18%.

Table 1: Significant proportion of women in Bihar have had no schooling

	Bihar	Average for India
Women with no schooling (%)	47.8	27.6
Women's ownership of house (alone or jointly) (%)	57.8	37.1
Women's ownership of land (alone or jointly) (%)	49.6	28.3
Women have a mobile phone that they themselves use (%)	40.9	45.9
Among women who have mobile phones, % who can read SMS	42.2	66.3

Source: NFHS-4

1.2. POLICY CONTEXT

Promoting women's work participation, economic empowerment and entrepreneurship is a top priority for the national government. In its three year (2017-20) 'action agenda draft' released on April 23, 2017, the NITI Aayog has stressed on the importance of promoting equal participation of women in the Indian economy. Project Parity, a flagship programme of the NITI Aayog to be implemented with corporate partners aims to enable 300,000 women to get access to jobs and entrepreneurship opportunities with meaningful income-earning potential. Specifically, Project Parity aims to make 6 million+ women digitally and financially literate, 4.5 million+ skilled and 3 million+ productively employed over a two-year period. The key guiding principles of Project Parity include being relevant for women across geographies (rural/urban, all states of India), by education (primary, secondary, tertiary), and by life-stage (single adults, married women, mothers etc.)

The state government has invested extensively in improving education and health indicators of women and girls. Girls' access to quality formal schooling is being enhanced through several schemes such as the Mukhyamantri Balika Cycle Yojna, Mukhyamantri Balika Poshak Yojna, Mukhyamantri Akshar Aanchal Yojna and the recently announced

Mukhyamantri Kanya Uthan Yojana. The last is an incentive-based scheme to encourage girls to complete their education, and delay marriage. Therefore, unmarried girls are paid ₹10,000 for completing their intermediate course and an amount of ₹25,000 for completing graduation.

Other schemes also work on the objective of stopping female foeticide and delaying girls' marriages. For example, the Mukhyamantri Kanya Suraksha Yojna provides economic support and incentive for girls and their families with the state Government of Bihar investing an amount of ₹2,000 in the name of the girl child at her birth. At the age of 18, she receives the maturity amount. In 2017-18, more than 280,000 girls benefited from the program (GoB, 2018).

The Mukhyamantri Kanya Vivah Yojna extends financial support of ₹5,000 to girls of BPL families who get married at the age of 18. The Mukhyamantri Sanmvasin Kanya Vivah Anudaan Yojna, similarly, provides girls staying at state-run shelter homes with a financial support of ₹20,000 on their marriage. In 2010, Bihar notified a Child Marriage Prohibition rule, and extended it throughout the state to prohibit child marriage. On October 2, 2017, the GoB launched a historic and dedicated social campaign to



prohibit child marriage and dowry in Bihar. The Women Development Corporation (WDC) in Bihar is currently working on these schemes in collaboration with other government departments to contain the social evil of child marriage.

Apart from these schemes, the Government of Bihar collaborates with the United Nations, World Bank, UK aid and other multi-lateral agencies to respond to the social, economic and political needs of the women in Bihar. The new schemes initiated by the Government of Bihar include the launch of the “Janani Shishu Suraksha Karyakram” to provide free and cashless services to pregnant women and sick new born in public health institutions situated in both rural and urban areas; the “Nayee Pidhi Swasthya Gaurantee Karyakram” under which medical check-up of children and adolescent girls is being conducted and all beneficiaries are being provided health cards; and “the Satabdi Mukhyamantri Balika Poshak Yojna” under which 22 lakh girl students studying in class IX to XII are being provided ₹1,000 for purchasing their school uniforms. This is over and above the delivery of national schemes such as SABLA, the Janani Suraksha Yojana and the Indira Gandhi Matritva Sahyog Yojana. All of these efforts have resulted in significant improvements both in female literacy and health indicators like female life expectancy at birth in Bihar.

The Government of Bihar is committed to improving women’s employment rates. The main development focus of the state government is now around seven resolves (Saat Nischay) which include

1. Arthik Hal, Yuvaon Ka Bal (Economic solution is the strength of the youth),

Since its inception in 2006, JEEViKA has expanded its outreach to nearly

7.9m households, and plans to scale its operation to cover 12.5 million households by 2022



2. Aarakshit Rozgar Mahilaon Ka Adhikar (Assured employment is the right of the women),
3. Har Ghar Bijli Lagatar (Constant supply of electricity for each household),
4. Har Ghar Nal Ka Jal (Running tap water for every household),
5. Ghar tak Pakki Gali-Naliyan (Paved road and drains for every house),
6. Shauchalay Nirman Ghar Ka Samman (Construction of toilets makes decent houses)
7. Awsar Badhe, Aage Padhe (Better facilities for higher education).

For GoB, the historical approach to improving women’s employment has been to collectivize poor, rural women into self-help groups (SHGs) and support them through livelihood promotion activities. Jeevika, the state’s flagship program that forms SHGs of women, was launched with a strategy to create self-managed community



institutions of participating households. The program, assisted by the World Bank, attempts to reduce poverty and enhance gender equality by forming a network of women's SHGs to roll out a variety of interventions, such as access to low cost credit, food security, and nutrition programs. Besides enhancing women's income through sustainable livelihoods, it increases their access to social protection programs including food security by enabling them to articulate a more effective voice in the implementation of such schemes. The program also provides training and initial capital to initiate women's economic activities. Jeevika has so far created over 675,000 SHGs until September 2017 (GoB, 2018). Since its inception in 2006, the project has expanded its outreach to nearly 7.9 million households and plans to scale its operation to cover 12.5 million households by 2022.

The GoB is committed to improving women's employment rates. The main development focus is now around seven resolves, which includes 'Aarakshit Rozgar Mahilaon Ka Adhikar'

The state's Women Development Corporation (WDC) – which is the nodal agency for implementing women development programmes – also runs several programmes for women's empowerment. These include the Mukhya Mantri Nari Shakti Yojana (MNSY), which aims to empower women economically, socially and culturally. The program offers helplines, short stay homes, socio-psychological support and legal aid to victims of domestic violence and trafficked women and adolescents. It also runs programs like service oriented skill trainings. Until 2017-18, nearly 23,000 women had received training in employable trades under the program (GoB, 2018).

Another scheme – the Mukhyamantri Nari Jyoti Program – is designed to empower the women of Mahadalit communities with the strategy of forming and nurturing their SHGs. The Mahila Samridhi Yojna aims at the self-reliance of the women from scheduled castes and provides a grant of ₹10,000 to initiate self-employment along with an additional loan of ₹15,000 at 4% interest rate. There have also been smaller projects for women in the textile sector under the Samekit Hastkargha Vikas Yojana which provides weavers with funds for purchasing new looms, dyeing kits, raw materials and for construction of work sheds. Besides these programs and projects, there is increased policy emphasis on promotion of skills, particularly of youth, including young women under the Kushal Yuva Programme, the Bihar Skill Development Mission, and training programs run by the Women Industrial Training Institutes and the Bihar Industrial Association.

A recent gender budgeting exercise undertaken by the Gender Resource Centre, WDC, however,



The total budget outlay for women's development has increased over the years, from ₹7,836 crores in 2012-13 to ₹15,077 crores in 2016-17

suggests that despite the efforts mentioned above, there are only few specifically targeted programs for women. Most of these are concentrated in the Social Welfare, Education and Rural Development departments. However, lack of gender-disaggregated data within departments at the project level may serve as a constraint to fully estimating the anticipated flow of resources to women. According to the GoB's Economic Survey 2017-18, the state government has been publishing its gender budget since 2008-09. The total outlay for women's development has increased over the years, from ₹7,836 crores in 2012-13 to ₹15,077 crores in 2016-17. The share of the outlay for

women in the total state budget has been about 13%, with some year-to-year variation. Outlays for women as percentage of GSDP have been around 3% (GoB 2018).

What is clear is that more work is needed to strengthen gender cells within each department, to revisit norms for flagship schemes to enhance women's inclusion, build capacity of officers so they can apply a gender lens for new programs, and also standardize reporting formats so progress on gender can be monitored on the issue of gender responsiveness.

1.3. STUDY OBJECTIVES AND METHODOLOGY

This report proposes to provide a landscape view on the status of women's economic empowerment in Bihar with suggestions on how to further it. Specifically, it suggests a few programs that can help further women's employment in sectors such as agriculture and allied activities around it (e.g. dairy), the formal

salaried sector, in self-employment ventures, and in traditional and a few non traditional occupations. To do so, the report draws on 3-4 promising schemes and interventions from other states in India that have the potential to be adapted for and piloted in Bihar. It also draws on a few consultations and interviews undertaken with program champions to understand the obstacles they faced while implementing these programs, and how they overcame them. The report concludes with some of the enabling steps that GoB will have to take in terms of backward and forward linkages to promote women's employment in the state.

The report deliberately distinguishes between interventions to further labour force participation and those that can increase women's economic empowerment. Empowerment can be viewed broadly as increasing women's freedom of choice and action to shape their own lives (Narayan 2002). In a context where women's freedom, even of movement, is shaped by norms of patriarchy, improving women's participation in the labour force may not necessarily empower them for example to use their income the way they want. In such a context, women may end up taking lower, mostly informal and unpaid roles in the value chain while men dominate the more formal jobs. Economic empowerment, then, calls for a much broader approach. It requires, in the words of Narayan (2005), an expansion in women's assets and capabilities so they can participate in, negotiate with, influence and control institutions such as the market. Under such an approach merely getting more women to work does not suffice. Instead, more enabling interventions are required in women's agency, in their skills, in their collective voice and organization and improving their access to assets, particularly financial assets. An institutional climate which can help further women's economic empowerment also needs to be created, for example by increasing women's digital literacy (which can help improve their access to information) and by creating safe

public spaces (which can improve social norms around women's physical movement and can help them reach work where available). This report also talks about such enabling investments.

Finally, this report advocates a local area approach. To quote SEWA Bharat's study on women's work in rural Bihar, "A woman in a village generally sees the economy from a very local viewpoint. She normally does not travel beyond her village or her district, she may visit the nearest block or district town, she may use local markets but rarely goes further than that. She may understand the local economy, but the state economy, or the national economy, is very far from her reach or understanding. Therefore, a pattern of development that recognises and builds upon the work that forms the basis of her livelihood, would be more suited to enhancing her opportunities and her capacities. A local-area approach would build on the strengths and capabilities of rural women.

This is possible in Bihar, because the state can be seen as an agglomeration of many local economies, each area having its own cropping pattern, as well as manufacturing and service activities that draw upon locally available resources and skills. As connectivity increases, transport and communication networks are strengthened, and investments are made in infrastructure facilities, these features are likely to change. However, an approach that strengthens the local economy can use this connectivity to bring resources and opportunities down to the local-level" (SEWA Bharat, 2014). This approach also ties in well with the Gandhian philosophy of Gram Swaraj.

As Gandhi ji himself said, "I know that the work (of shaping the ideal village) is as difficult as to make of India an ideal country... But if one can produce one ideal village, he will have provided a pattern not only for the whole country but perhaps for the whole world."⁸ ■

8. Village Swaraj. Written by: Gandhi MK. Compiled by: Vyas HM. India: Navajivan Publishing House, Ahmedabad; Available from: http://www.mkgandhi.org/ebks/village_swaraj.pdf

Agriculture and Allied Activities

2.1. WOMEN'S CONTRIBUTION

Farming and animal husbandry capture almost all the activities undertaken by rural women in Bihar. The state has attained self-sufficiency in food grain production, and small farmers, many of whom are women, generally give priority to being self-sufficient with regard to food for their families. Rice, wheat, maize and pulses are the major food crops while potato, sugarcane, oil seeds, tobacco and jute are grown mainly for commercial purposes. Although horticulture (fruits, vegetables, spices, honey, medicinal and aromatic plants) occupy a mere 15% of land area, the income generated from horticulture is much higher in proportion to the land it covers. The state has a monopoly in the production of litchi and makhana. Floriculture is growing fast too. Animal husbandry has also grown in Bihar, which is now a major supplier of milk. However, limitations of transport, storage facilities and productivity mean that the full potential is not being exploited. As will be seen later in this chapter, women spend a great deal of their time and energy in animal husbandry and this is an area where opportunities can be tapped (SEWA Bharat, 2014).

The share of the primary sector in the state's GDP (GSDP) has been decreasing. In 2011-12, the share of the primary sector in total GSDP was 25.2%, the secondary sectors' contribution was 18.3% and the remaining 54.3% was accounted for by the tertiary sector. In 2015-16 the changed shares were – primary (18.3%), secondary (18.1%) and tertiary (59.9%). This suggests that over the four-year period the share of primary sector has fallen by 7 percentage points. During the same period, the contribution of tertiary sector has jumped by 6 percentage points and touched a high of around 60% (GoB, 2017).

However, a large share of workers in Bihar remain concentrated in the primary sector, more so women. According to the primary survey undertaken by IHD (2011; see Chapter 1), of the women who work in rural Bihar, nearly 90% are engaged in the primary sector (48% in farming and 42% in animal husbandry); only 10% work in some type of industry or service. Animal husbandry, particularly, serves as a great source of self-employment with nearly all women working on it, tending to their own cattle. In contrast, 3 out of every 4 women who work on the farms in rural Bihar are engaged as casual

labourers. Finally, among women who work in some type of manufacturing or service, 47% are self-employed, 34% work as casual labourers, and 19% are in regular jobs, employed as anganwadi workers or Accredited Social Health Activist (ASHA) workers, or as auxiliary nurse midwives (ANMs) (Mehta, 2012).

It is wrong to construe that participation rates of women in the primary sector are low in Bihar, as indicated by national surveys. The aforementioned primary study by IHD, for example, finds that women dominate animal husbandry work in rural Bihar, with about 80% of all workers in the sector being women. Women also bear an equal burden for cultivation, with one in every two workers on a farm in rural Bihar being a woman. But because animal husbandry is not counted as women's 'primary' or 'main' work, and because women who work on the farms treat it as work in family enterprises or as own account, unpaid work, they do not show up in the labour force.

2.2. RECOMMENDATIONS FOR THE FARMING SECTOR

With more men migrating, women are engaging in labour that is more arduous; the wage rates need to factor this in. Cultivation is an extremely gendered activity where the roles of men and women are starkly different. Men tend to undertake jobs that are considered more suitable for them and involve physical labour (e.g. ploughing and digging), while women take care of weeding and transplanting. However, with more men migrating out of Bihar, women have started taking up these responsibilities, as well as the overall task of managing their small, marginal farms. However, their wages remain much lower than those paid to men, and well below the minimum

MGNREGS could be leveraged to push overall agriculture wage rates for women, as they remain a primary source of earning for millions of women in the state

wages. While village level factors influence wages (e.g. overall availability of labour, introduction of new crops which require new types of labour activities – potatoes require more weeding for which women are preferred, the MGNREGA wage rate in the area) and wages also tend to be paid in cash, the government on its part can initiate a study of existing wage rates paid to women, and aim MGNREGA at areas where agricultural employment is scarce or where wages paid are very low. As indicated in Chapter 1, women's share of overall work provided under MGNREGA is still low. Moreover, MGNREGA work has declined in recent years. The scheme could be leveraged to push overall agriculture wage rates for women, as they remain a primary source of earning for millions of women engaged in agriculture in rural Bihar.

Access of women to 'Kisan Credit Cards' needs to improve. Introduced in 1998-99, the Kisan Credit Card (KCC) scheme is an important instrument available to Indian farmers to avail of crop loans in a flexible and cost effective manner. The scheme offers short-term cash credit limits for crops and term loans for allied activities such as procurement of pump sets, for land development and for setting up a drip irrigation system.





Farmers are also covered under personal accident insurance (an amount up to ₹50,000 payable on death or permanent disability) and ₹25,000 for other risks. The validity of the loans is usually up to five years with an option to extend up to three more years. However, it is rare to find data on the scheme disaggregated by male and female farmers, even though experience has shown that women repay loans better. Going forward and with increasing feminisation of agriculture, women will have to be considered as an important constituency and client group for the scheme. One possibility of reaching out to more female farmers is to give the Kisan Credit Card to them, linked to a minimum balance in their Jan Dhan account, even if a male member—her husband, brother or father—owns the land.

Forming women into self-help groups and connecting them to agriculture extension services such as training has been a model that has been working well in Bihar; it needs to be scaled up. Women SHG members under Jeevika

for example have started cultivating oyster mushrooms. Many women have come together to form a farmers-producers company in the district of Nalanda, with an average member earning about ₹15,000-₹20,000 per month from mushroom farming. What has helped is financial assistance organized by Jeevika through a subsidy scheme under the National Horticulture Mission. Jeevika has also connected these women to training opportunities, in this case provided by the Rajendra Agricultural University, Pusa that has trained nearly 14,000 farmers including 6,000 women of different districts of Bihar in mushroom cultivation technology. Now more than 20,000 families produce more than 2,000 tonnes per annum of mushrooms across 38 districts of Bihar. Those involved are now earning ₹5,000-₹10,000 (Mahadalits) and ₹15,000-₹20,000 (other small farmers). Jeevika is similarly working on promoting sericulture-based livelihoods in Bhagalpur, Bihar. Women do about 75% of the work of rearing mulberry cocoons. This needs to be connected with training camps, currently operated by the Government of India with silk farmers in Purnea, so it can be scaled up.

Women are intensively involved in planting and transplanting activities in farming; small nurseries

3 out of every 4 women who work on the farms in rural Bihar are engaged as casual labourers

Women's participation can be improved in agro-processing. The cultivators in Bihar produce a variety of crops, besides foodgrains, thanks to the wide biodiversity of the state

within villages can increase their involvement further and help in crop diversification. The state of Himachal Pradesh (HP), for example, has engaged women in crop diversification – growing tomatoes, red and yellow bell peppers, celery, lettuce, cucumber, soya, cauliflower, cabbage etc. which can be supplied to markets in Delhi. What has worked is subsidies from the state agriculture department to set up greenhouses as nurseries for vegetable cultivation. The greenhouses allow cultivation under precise irrigation and controlled conditions; there is no danger from wild animals; and the crops are disease free. Importantly, however, these greenhouses are small in size using simple methods such as a green mesh for protection and are built at the village level itself after reaching agreement with the relevant panchayats, so women do not have to go far. Women are also trained in climate resilient agricultural practices, in the case of HP organized by the local Department of Environment, Science and Technology, which helps them study planting patterns, when to plant for better produce etc.

Yet another area where women's participation can be improved is agro processing. The cultivators in Bihar produce a variety of crops, besides food-grains, thanks to the wide biodiversity of the state. These crops include oilseeds, fibres, fruits, vegetables, sugarcane and tea. In addition, Bihar also produces a substantial amount of milk. Thus, Bihar offers enormous opportunities for agro-based industries.

The number of food processing industries in Bihar in 2015-16 was 399, of which 266 (66.7%) were operational. By August 2016, there were a few

additions, resulting in 407 units, of which 278 (68.3%) were operational. Although the range of products of the agro-based industries in Bihar is quite wide, the cereal-based industries (rice, wheat and maize) dominate the sector. No less than two-thirds of the agro-based industries in Bihar are engaged in processing of cereals. The total employment under the Food Processing Industry is about 48,000. The recent Bihar Economic Survey 2017-18 indicates that if the state were to increase its processing facilities by 50%, not only would it lead to a reduction in wastage of perishable agricultural produce, particularly fruits and vegetables, but it would also help farmers realise a better price for their produce and create new employment opportunities (GoB, 2018).

The Directorate of Food Processing provides special assistance to the sector under an Integrated Development Project, which provides subsidies to clusters of food processing units at 40% and for individual units at 35%. Specifically, if the individual units want to expand capacity and are owned by women, an additional 5% subsidy is payable.

This is an area where women's employment can be furthered, especially because some subsidies can be availed. A similar exercise was undertaken in Bidar, Karnataka, which is also known as the pulse bowl of the state. Under a project commissioned by the Indian Council of Agricultural Research (ICAR), 24 small-scale food-processing units were set up introducing a mini dal mill, vermicelli machine, chilli-pounding machine, flourmill and weighing balance. The project not only led to easy accessibility of processed food products at the local level, but also considerable gain in income and employment, especially for women who were otherwise involved in such food processing, but using more manual and inefficient methods (Biradar and Bhavani, 2015).

A similar model may be thought of for women in Bihar, more so for marketing and processing maize and maize products given the increase in maize production over time in the state.⁹ Some

⁹. For more details, see "Bihar: An Unlikely Corn Revolution" (<https://www.udyogmitrabihar.in/bihar-an-unlikely-corn-revolution/>)

Mahila Producer companies are already doing this. For example, the Aranyak Agri Producer Company, Purnia had procured, until 2017-18, 13,944 MT of maize from 3479 farmers. Similarly, the Samarpan Jeevika Mahila Kisan Producer Company, Muzaffarpur had procured 31.9 tonne litchi and 9.2 tonnes of mangoes from 130 and 28 farmers respectively and the Sahyog Women Jeevika Agro Producer Company, Nalanda had procured 1,230 MT of potatoes from 368 farmers/SHG members. The Mahadalit women of Maner block in Patna district had started a spice unit, tapping the local market for selling its products (GoB, 2018). Such efforts need to be evaluated to study what worked for them, and how such initiatives can be scaled up.

2.3. RECOMMENDATIONS FOR ANIMAL HUSBANDRY

The animal husbandry sector contributes to about one-fifth of the total rural income in Bihar and creates large-scale employment for women and workers belonging to the marginalised section of the society. The occupation has been described as a form of 'sustainable entrepreneurship' for the poorest¹⁰, especially those who are landless or have small and marginal plots of land. In fact, almost 70% of dairy farmers in Bihar are small/marginal farmers who own only one to two cattle (WDC, 2018). As far as women are concerned, and as indicated earlier, they form almost 80% of the work force in animal husbandry in Bihar but remain under-counted as workers in this sector. A large part of the labour force in animal husbandry consists of unpaid family labour, and caring for cattle and poultry is seen as a part of household work done by women, and not as 'employment'. Women engage in the less visible work of cleaning, collection of cow dung and making cow dung cakes, collection of fodder and its cutting, while men do the more visible work of milking and marketing. Interestingly, women tend to perceive such animal husbandry-related work as being a part of their daily care work and their own perception of their role in the sector is not as 'workers' even though they may spend up to eight hours or more per day in activities related to

Women form almost 80% of the work force in animal husbandry in Bihar, but remain under-counted as workers in this sector

animal husbandry (SEWA Bharat, 2014). Bihar has a large population of milch cattle. According to the National Dairy Development Board (NDDB), Bihar had a population of about one million female buffaloes and cows (including crossbred and indigenous) in 2012. The state stood below only Uttar Pradesh, Rajasthan and Madhya Pradesh on the count of milch cattle. If one looks at the district-wise data, for bovine population (cows and buffaloes), the districts with higher shares are — Araria, Gaya, Katihar, Banka and Madhubani for cows and Madhepura, Madhubani, East Champaran, Gaya and Nalanda for buffaloes. Women's work in animal husbandry needs to be mobilized with a specific focus on these districts if their contribution to the sector is to be made more visible and if their income from dairy is to improve.

Milch animals are important resources for women. Possession of a dairy animal means not only higher income; it also means status, improved food and nutritional security, and an opportunity to take control over one's own life. Women tend to have greater control over this resource, as compared to other resources like land. In fact, they also have a closer bond with these animals, and are more knowledgeable about their behaviour and their health. On the one hand, animal husbandry opens up an occupation for women within the village itself, and on the other, it has multiple benefits for the woman's family, including better nutrition and funds for education. Most of the women usually keep a part of the milk yield of cows/buffaloes for home consumption. A recent study undertaken by the Gender Resource Centre, WDC reports that families that are members of dairy cooperatives keep as much as 12% of the total milk for their own use leading

10. <http://ahd.bih.nic.in/DOCS/BAHS-2012.pdf>

to nutritional benefits for the households, more so for their children. In areas where there is no organised dairy, the women sell milk to local sweet shops and usually the men do door-to-door delivery. Surplus milk is converted into curd and ghee for sale, while the by-product, buttermilk, is consumed at home.

The Bihar State Milk Co-operative Federation Ltd (COMFED) was established in 1983 as the implementing agency of the Operation Flood programme of dairy development on the 'Anand' pattern in Bihar. It markets its products under the label of 'Sudha'. There are 8 milk unions corresponding to the 9 geographically distinct, administrative divisions of the state. The state started a special drive to form women only dairy cooperative societies in FY 2015-16. Until the close of the fiscal year 2016-17, there were 538 women only dairy cooperative societies involving slightly more than 17,000 women¹¹. COMFED and its affiliated milk unions provide the necessary organizational and marketing assistance and handholding support for the functioning of women dairy cooperative societies spanning activities such as procurement, processing and marketing of milk to ensure both a continuous supply of milk as well as remunerative return to the members on the product. This is in addition to other support services such as veterinary support, cattle feed, artificial insemination and providing insurance facilities to women members. Women are trained in leadership roles, and are made aware of the importance of nutrition, hygiene, child development and their legal rights (WDC, 2018).

A recent evaluation of COMFED's women dairy cooperatives suggests that membership in such cooperatives has led to many benefits for women. Where present, the cooperatives have played a major role in improving incomes. While there are regional variations in the earnings from sale of milk, both because of variations in price of milk as well as in the cost of feed, on an average, there are gains of about ₹7.50 per litre post the association with the women dairy cooperatives, over and



In 2017, there were **538** women only dairy cooperative societies, involving slightly more than 17,000 women

above the ₹25 per litre which is the average selling price of milk. There is a significant impact on women's empowerment as well: movement to and fro from the cooperative societies has increased their mobility and interaction with other community members; the extra cash income enables them to spend more freely, including on their children's nutrition, on family maintenance and personal expenses such as marriage functions; a significant number participate in cooperative meetings and are more vocal, at least in the safe space of these meetings to voice their concerns; improved communication has boosted their confidence, particularly in interacting with

¹¹. In 2017-18, till February, an additional 437 such societies had been formed.

government officials; women speak of having (now) an opinion in family planning and exercising their voting right by themselves; and no where do they speak of any social discrimination. The COMFED evaluation did not observe even a single case of such discrimination – women of all castes and classes spoke about interacting comfortably and amicably.

One of the main constraints women face though to scaling up their dairy related activities is access to credit. Only 17% of the women dairy cooperative members had access to or had taken some kind of loan. Many women said it was because they did not know or knew very little about the credit schemes available in banks and/or those provided by the government. This made them hesitant in taking the risk of a future investment in fear that if they lost the animal, they would fail to repay the loan, making them more vulnerable. Further, while nearly all members confirmed having a bank account and being aware of the Pradhan Mantri Jan Dhan Yojana, in a good number of the women dairy cooperatives visited, transactions were done in cash or on an informal, credit system (WDC, 2018)¹². While some members were accessing Jeevika to provide them with loans, clearly the majority were not.

To improve access to credit, women's thrift groups (WTGs) need to be encouraged. Taken up initially as a pilot activity by the National Dairy Development Board (NDDB), in some Milk Unions, thrift groups mobilise member savings, making them available either directly, or as loans, both for maintaining milch animals during the lean season as well as for the purchase of livestock. Importantly, these groups provide a system for women to place their earnings from sale of milk to their cooperative, and enhance their activity level, while providing opportunity for social interaction. An additional benefit of thrift groups is the experience women gain in managing their own institutions, which prepares them to assume higher responsibilities in managing their dairy cooperative societies and the Union. Two



Access to credit remains a constraint for women in scaling up their dairy-related activities. Only 17% of women dairy cooperative members had access to or had taken some kind of loan

Milk Unions namely Ichhamati Cooperative Milk Union, in West Bengal and Mulukanoor Women's Mutually Aided Milk Producers Cooperative Union, in Andhra Pradesh have evolved as all women cooperative dairies completely managing and governing the dairy enterprise.

Interestingly, the Mulukanoor Union was a deviation from the standard model as recommended by NDDB. It took credit from the Cooperative Development Federation (CDF), an agricultural and marketing cooperative in Warangal, Andhra Pradesh. Between August 2002 (when the milk union was established) and January 2006, membership in the milk union grew from 5,500 to 15,000. Members' share capital and development deposits

¹². The recent Global Findex report published triennially by the World Bank finds that despite the push for Jan Dhan, 48 % of India's bank accounts are inactive i.e. there are no deposit/withdrawal activities in over a year (World Bank, 2018).



increased from ₹300,000 to ₹11.2 million. Milk procurement rose from 2.4 million litres to 6.5 million litres in the year 2004-05. Sales increased from 2.9 million litres to 7.1 million litres during the year 2004-05. Net surplus rose from ₹19,000 to ₹1.9 million. At the start of the project, ₹34 million was extended as loan to the Mulukanoor Union by the Cooperative Development Foundation for meeting its capital investment needs. At the end of January 2006, the loan stood at ₹3.3 million.¹³

Since it was a deviation from the usual model, NDDDB refused to finance the Union initially. Although NDDDB did not finance, they provided all the technical support for the construction of the processing plant and making it operational. However, once the model was successful and was profitable (from the first year itself) NDDDB recognized it and is presently also financially supporting it. Such models can be studied and visited to draw on lessons.

Financial assistance can also be sought from other government schemes, such as the National Rural Livelihoods Mission (NRLM), Support to Training and Employment Programme for Women (STEP), dairy development programs etc.

Milk collection needs to be done in a fairer and transparent manner. Milk production has been increasing at a healthy rate in Bihar, at a compounded annual growth rate of 6.4% between 2012 and 2017, and stood at slightly over 87 lakh tonnes for the fiscal 2016-17. However, investments in technology are imperative if Bihar has to procure milk efficiently, with the maximum return to cattle owners. The women's dairy cooperative societies need to invest in facilities that can aid automatic weighing of the milk and test its quality including fat and SNF percent. These machines are common in the most remote villages of states like Gujarat, and provide to the milk producers' acknowledgment slips for the quantity of milk they get to the cooperative on a given day, along with the fat, SNF content etc. and the total payment due. The milk producers' bank account details are stored with the cooperative and payments are credited, scientifically, and in a timely manner at the end of each month based on the above parameters. This helps eliminate conventional paperwork. Transparency in payment based on apriori determined rates of milk for a given quantity, fat, SNF content etc. also helps build confidence and a sense of ownership among milk producers.

Extension services need strengthening. While the coverage of extension services such as animal treatment, immunization and artificial insemination has been improving over the years i.e. they cover more milch cattle, COMFED's evaluation shows that there is a need to scale up artificial insemination (AI) interventions through convergence with the "Gavya Vikas Yojana". Milk producers want medical facilities to be improved for cattle. This can be done by connecting the cooperative societies with doctors in the Animals and Fisheries Resources department. Employing more Mahila Sudha Mitras can help more women avail such extension services. These Sudha Mitras can also help organize training and exposure visits for women. Jeevika has been trying this model by recruiting someone known as a Dairy Resource Person (DRP).

¹³. For more details, see http://ilrtindia.org/downloads/Mulukanoor-Women-s-Mutually-Aided-Milk-Producers_15.pdf.



The Bihar State Milk Co-operative Federation Ltd (COMFED) requires process efficiency related improvements

This individual, who may be a female or male member of an SHG, needs to be a milk pourer in the cooperative, with a minimum educational qualification. He/she is expected to motivate milk producers and provide support on a day-to-day basis, including maintaining data of the number of milch animal in a village, the amount of (surplus) milk produced, its quality, health of the milch cattle, their vaccinations, kind of fodder being fed, cultivation of fodder seeds etc. The main responsibility of the DRP is to improve the productivity of the milk producers either with their existing milch cattle or with those newly purchased after joining the SHG.

COMFED needs more process efficiency related improvements. The most important benefits perceived of the cooperative by cooperative members is the supply of concentrated feed, the provision of free or low-priced veterinary service,

and a higher price for milk. However, payments are not regular in all districts. The COMFED evaluation found delays in payments in Bhagalpur for instance. Expectations around a subsidy or bonus payment at the end of the year, which many cooperative members tend to have, also need to be managed (WDC, 2018).

Women's groups (Jeevika) offer a platform for scaling up. Even though SHGs under Jeevika are outside the mandate of the WDC, these can be tapped for their organizational potential. Several Jeevika members have already formed dairy cooperative societies. By March 2015, there were around 450 milk producer groups under Jeevika linking 26,000 households (Jeevika Annual Report 2014-15). This model has also been followed in other states. For example, the Aanchal dairy, which is the cooperative dairy in Uttarakhand, was set up with the help of the Himalayan Action Research Centre (HARC), a Dehradun-based NGO. A total of 40 women from four villages – Bajlari, Pamadi, Nariyumka and Manda – who were involved in dairy production were formed into a group by the NGO.¹⁴ The group took loans from local banks facilitated by HARC and started buying milch cattle, which led to higher incomes from milk. A few more loans along with artificial insemination resulted in rapid expansion in the number of cattle. On its part, the HARC provided them with training in livestock management and also on how to write loan applications/proposals, which were then submitted to NABARD. Once the main loan for the SHG was cleared, the State Bank of India cleared individual loans for buying the cattle.

Today, all 13 districts in Uttarakhand are covered by Aanchal under its 11 district level milk unions. The federation has 9 milk-processing plants with a processing capacity of 255 thousand litres per day (TLPD) and 44 chilling centres with a handling capacity of 95 TLPD. In addition, Aanchal has established a cattle feed plant with a capacity of 100 MT/Day, a compact feed block plant with a capacity of 10 MT per day and a mineral mixture plant with a capacity of 4 MT per day to supply

¹⁴. <http://www.thehindu.com/todays-paper/tp-national/tp-newdelhi/milking-an-idea/article3495132.ece>

quality cattle feed, area specific mineral mixture and compact fodder block to the milk producers. Among processed products, Aanchal has its own brand of cheddar and ricotta cheese. It has also dispersed a wide variety of cross breeds of cattle through various government and other schemes throughout the state.

A similar approach needs to be thought of for Sudha wherein more SHGs, along with their village organizations (VOs) need to be integrated into the COMFED federation to give scale to milk collection and the number of women who benefit from COMFED across the state.

Male dominance needs to be checked. The increased economic importance of dairy through the cooperatives has led to higher male involvement. The COMFED evaluation observed that in most cases, when dairying started moving from a subsistence oriented to a market oriented activity, the male members of the family started wresting more control. This was more so because expansion called for accessing more formal markets, access to which is (still) socially restricted for women. In terms of access to economic assets within the household too – such as land – women did not speak of any visible improvement (WDC, 2018). While there is still a long way to go before we overturn the patriarchal norms that govern existing patterns of ownership and inheritance, this tendency can be checked in the short term through simple measures like making direct payments for milk through ECS into women's bank accounts. If women get money directly and have control over it, it can help discourage male interference and dominance. Male sensitization programs may also be built into the

cooperative training modules, so men realize how women's coming forth in dairy can only help add to the entire household's income.

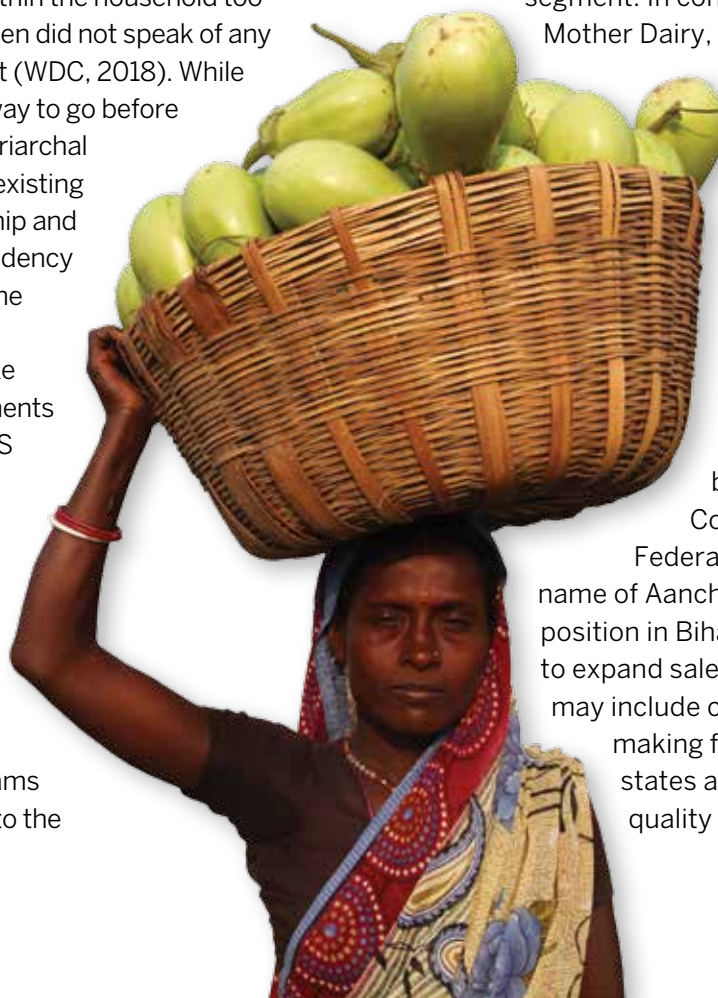
Eventually market access is a precondition for success. In the words of Verghese Kurien, the father of the milk revolution, "In efforts to organize cooperatives, it is best to begin by studying the demand system rather than the production system. Steps to mount a successful marketing strategy should be taken before organizing the producers." Amul did this very effectively by adding value to buffalo milk, by converting it into milk powder. In fact, according to Kurien, "for dairy cooperatives, especially those without direct access to a large liquid milk market, conversion of milk into ghee and powder has in most years been as profitable or more profitable than marketing liquid milk. Seizing this competitive advantage has been one of the keys to their success" (Kurien, in Narayan and Glinskaya, 2007: pages 64-65). While Sudha has expanded its product range to include butter, ghee, ice cream, sweets and lassi/matha, these still do not occupy major market shares and are not the leaders in their

segment. In contrast, brands like Amul, Mother Dairy, Aanchal and Saras

have done better. It appears that better brand positioning can help Sudha expand its sales, at least in Bihar to begin with. Sudha's range of products can be expanded too to include cattle feed, for instance, as sold by the Uttarakhand

Cooperative Dairy

Federation (UCDF) under the name of Aanchal. Once it cements its position in Bihar, a long-term strategy to expand sales may be devised which may include components such as making forays into neighbouring states and exercising strict quality control. ■



Non-Farm Sector

3.1. WOMEN'S INVOLVEMENT IN THE NON-FARM SECTOR

While the share of the non-farm sector has been rising in the state's economy, it is smaller than many other states in India. As indicated in section 1, Bihar remains primarily agrarian. Yet, the most recent Bihar Economic Survey suggests that there has been a shift, with the primary sector only contributing to 25.2% of GSDP in 2011-12 as opposed to the secondary sector's and the tertiary sector's contribution, respectively at 18.3% and 54.3%. The maximum growth in recent years has occurred in the tertiary sector, which comprises trade and repair services, hotels and restaurants, transport services including road and air transport, and services incidental to transport, storage, communication and broadcasting, financial services, public administration, and real estate and other professional services. Even as the tertiary sector has grown, the yearly growth rate of the secondary sector in recent years has varied considerably — from (-) 13.1% in 2012-13 to 30.6% in 2013-14. This variation is also observed for all the four sub-sectors — mining/quarrying, manufacturing, construction, and electricity/water supply/gas. Since the

contribution of the industrial sector to GSDP in Bihar stands nearly unaltered for many years at 19%, it is obvious that whatever modest structural change that Bihar's economy has shown in recent years is due to the higher growth rate of its tertiary sector.

According to the Bihar Economic Survey, the industrial sector in Bihar is small, both in terms of number of industries operating as well as size of the individual industrial units. The share of Bihar in the total number of industries in India is only 1.52%, while its share in national population is more than 8%. As regards the size of operational industries, it is again smaller than the national average, as indicated by their capital base, employment base and value of output. The size of fixed capital of all industries in Bihar (₹80.4 billion) is only 0.34% of the all-India figure. Bihar's share in other industrial indicators are — working capital (0.58%), persons engaged (0.84%), value of output (0.84%) and net value added (0.58%). The preponderance of smaller industrial units is, however, an expected phenomenon, since the process of industrialisation is still at a nascent stage in Bihar. The only ray of hope



in this otherwise disadvantaged scenario is a small increase in Bihar's share in the number of industrial units in India (from 1.49% in 2011-12 to 1.52% in 2013-14). If this trend continues and strengthens further, Bihar's industrial economy will be able to contribute more to its growth process.

Women's employment prospects in the secondary and tertiary sectors need consideration, but a majority of women tend to work outside of this 'formal' job market, in the informal sectors. There is hardly any data available on the population of informal workers in Bihar, let alone female informal workers. However, a few primary surveys such as those undertaken by SEWA-IHD, indicate that the bulk of women workers in Bihar, outside of the primary sector, work in the informal economy. They estimate that there are nearly 13 million women in the informal sector in Bihar, whose work is neither recognized nor rewarded. These workers contribute to economic growth through their work, their incomes, their savings and their investments, but none of this is captured in the traditional economic surveys, in GSDP calculations or in the female labour force

participation figures taken out by the NSS. This is because in the case of informal work, there is no clear employer-employee relationship, no contracts, no regular timings and the workplace is very often a woman's home itself (SEWA Bharat, 2014: page 23). Such work in Bihar includes women making agarbattis, baskets of soop, rolling bidis, making papad, lac bangles and women weaving. Further, such work tends to occur in clusters e.g. Muslim women rolling masala or the doughy mixture on to agarbatti sticks in their homes in Gaya; women weaving in Bhagalpur; women working on Mithila paintings in Madhubani; women involved in the Sujani quilting tradition in Muzzafarpur and so on. What this indicates is that with a little bit of support, small clusters of women's work can be formed and solidified.

3.2. RECOMMENDATIONS FOR WOMEN IN SELF-EMPLOYMENT

The National Sample Survey's 68th round reveals that nearly 80% women above the age of 15 in Bihar were engaged in domestic duties in 2011-12. That is, they either attended to domestic duties only, or they attended to domestic duties and were also engaged in free collection of goods

(vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use. Yet a majority, about 68%, who were required to spend most of their time on domestic duties said they did so because 'no other member was available' to carry out these duties. Given a choice, about 39% of the women who were engaged in domestic duties in rural areas and 42% in urban areas said they were willing to accept work at their household premises, with the most preferred option being that of tailoring. Nearly all preferred to work on a regular basis, though most women wanted regular, "part time" work so they could also attend to their domestic chores. More than half also said they had the skills and experience to undertake their desired work. What they wanted was financial assistance – initial finance on easy terms and working capital facilities – along with an assured market.

A statistical exercise on the number of women involved in domestic work but willing to take paid employment should be initiated. Given social norms around mobility, women find it easier to work in occupations like weaving, bidi rolling, basket making etc. from within the confines of their homes, either on their own or on a piece rate basis for a contractor (more common, and more exploitative). However, there is no concrete evidence on the number of women who are engaged in such activities or want to be engaged in such work, but face constraints in doing so. Neither is there a geographical mapping on where these activities are located or concentrated, so a cluster development approach may be adopted. Existing primary surveys, such as those by SEWA-IHD indicate that at the minimum, at least 13 million women are engaged in informal work in Bihar. But more in depth data may be collected on the type of work women do, in which districts, their earnings, their conditions of work etc. It is in the informal space that a lot of potential to push women's economic empowerment may lie.

For home based workers, the first step may be improvement in awareness and linking to social security schemes. Because most home based work in Bihar tends to be routed through

contractors who give women payment on a piece rate basis, women are often not aware of government provisions that guarantee some minimum payment to them. For example, women who roll bidis or make agarbattis, may not be aware of the existing statutory wages. The government of Bihar offers minimum wages to bidi rollers, but surveys indicate a wide variation in payments made to them. Therefore, the Labour Department must play a role in publicizing at least the minimum wage thresholds set by the state. Minimum age thresholds should also be maintained, as in several instances, children too are involved in rolling bidis or papads. Equally, information about women's work through the vernacular press can create publicity, and result in more women joining their peers. This aids group formation, with women eventually coming out of the contractors' net. Finally, once clusters of self-employment are identified, the government could also consider issuing women who are members, some kind of ID cards and setting up a contributory welfare fund, which can be accessed by members. To do so, it may begin by connecting with existing cooperatives that work with such workers, such as those run by SEWA in Bhagalpur, Katihar and Munger.

The government needs to think of investing in productivity improvements in such self-employed ventures. For example, in the case of agarbattis, an extruder peddle machine can help women roll the agarbatti dough more efficiently, thereby improving productivity. Similarly, women often have to stop rolling papads during the rainy season as the rains prevent their drying. However, simple innovations can take care of this problem, allowing women to work during the 4-5 months when Bihar gets rains. In its initial years Lijjat papad, also a home based industry originating from Maharashtra, tried a



The Story of Lijjat Papad

Lijjat was the brainchild of seven Gujarati women from Mumbai. The women lived in Lohana Niwas, a group of five buildings in Girgaum. They wanted to start a venture to create a sustainable livelihood using the only skill they had i.e. cooking.

In the year 1959, the women borrowed ₹80 from Chhaganlal Karamsi Parekh a social worker. They took over a loss-making papad-making venture by one Laxmidasbhai, and bought the necessary ingredients and the basic infrastructure required to manufacture papads. On 15 March 1959, they gathered on the terrace of their building and started with the production of 4 packets of papads. They started selling the papads to a known merchant in Bhuleshwar.

Within three months there were about 25 women making papads. Soon the women bought some equipment for the business, like utensils, cupboards, stoves, etc. In the first year, the organisation's annual sales were ₹6,196. The broken papads were distributed among neighbours. The group got considerable publicity through word of mouth and articles in vernacular newspapers. This publicity helped it increase its membership. By the second year of its formation, 100 to 150 women had joined the group, and by the end of the third year it had more than 300 members. By this time, the terrace of the seven founders could no longer accommodate the members and the ingredients, so the kneaded flour was distributed among the members who would take it to their homes and make papads. The papads were brought back for weighing and packaging. The organisation was named Shri Mahila Griha Udyog Lijjat Papad (Lijjat in Gujarati means tasty).

In 1966, Lijjat registered as a society and approached the Khadi Development and Village Industries Commission (KVIC), which granted it a working capital of ₹800,000 and allowed certain tax exemptions.

Lijjat carried out many innovations in the process of its expansion. With the working capital from KVIC, Lijjat began producing other products like khakhra, and later masala, vadi, wheat atta, and bakery products. It also set up flour mills for the raw material, a printing division, and a polypropylene packing division. But not everything

worked. Some unsuccessful ventures included making cottage leather, matches and agarbattis. Lijjat then entered the soap market with Sasa detergent and soap, which was a success.

Lijjat also started taking part in several trade fairs and exhibitions, which improved its sales and made the brand name "Lijjat" well-known among the people. The advertising was undertaken through the vernacular newspapers, television and radio. The institution sponsored programs and gave away gifts for the winners of specific shows in the television. The money for advertisements was spent by the Polypropylene Division, which recovered it by adding it to the price of the bags that it supplied to all the branches and divisions throughout India.

To maintain quality, Lijjat takes stringent steps. The quality of papads can vary due to quality of water used in various parts of India. To avoid any inconsistencies, the final products are tested in the Lijjat's laboratory in Mumbai. The central office purchases and distributes all ingredients to maintain the quality of the final product.

For example, the urad dal is imported from Myanmar, asafoetida is imported from Afghanistan, and black pepper comes from Kerala. A committee often makes surprise visits to various branches to ensure that production conditions are hygienic. When a new branch of Lijjat opens, a neighbouring Lijjat branch helps it by guiding and training new members.

On successive failures of a branch to abide by the organisation's philosophy of consistent quality and production of papads, the central committee reduces the daily wages of its members by ₹1. Conversely, member-sisters are rewarded if they put in extra effort. For instance, in 2002, the member-sisters at the Rajkot branch received ₹4,000 each as bonus, while the member sisters at Mumbai and Thane branches received a 5-gram gold coin as an incentive. Several issues of Lijjat Patrika enumerate the names of the names/numbers of the member-sisters, who were rewarded with the cash or gold, for their extra efforts.

In 2010, Lijjat had an annual turnover of around US\$100 million. By 2015, it was providing employment to 43,000 women across 81 branches in India.

similar innovation. Its members, who were mainly Gujarati women from a neighbouring group of buildings in Girgaum, Mumbai, solved this issue by buying a cot and a stove. The papads were kept on the cot and the stove below the cot so that the process of drying could take place in spite of the rains (see Box 2 for more innovations carried out by Lijjat).

For home-workers, the place of work and home are the same. The quality of the house, the availability of space to store materials, of light and fresh air, can therefore make a significant impact on the quality of the product, the health and well-being of the worker. Providing subsidies to upgrade houses is also recommended.

New avenues for self-employment may be considered. For example, in one of the initial conversations with WDC, it emerged that there is considerable concern on the use of plastic bags in the state, which are not only a nuisance for the environment, but also dangerous for animals who feed on them. According to a January 2015 assessment report of the Central Pollution Control Board (CPCB), every day Indian cities generate 15,000 tonnes of plastic waste—enough to fill 1,500 trucks, at 10 tonnes per truck—of which 9,000 tonnes are collected and processed/recycled, while the remaining 6,000 tonnes, or 600 truckloads, usually litter drains, streets or are dumped in landfills. Other more recent articles also underline the urgency of the problem. India generates 5.6 million tonnes of plastic waste annually, and the country accounts for 60% of plastic waste dumped into the world's oceans every year, estimates suggest. Further, according to an October 2017 article in *Environmental Science & Technology*, a global journal, three of the world's ten rivers, which carry 90% of plastic

to the world's oceans, are in India—the Indus, the Ganga and the Brahmaputra.

A ban on plastic bags has been considered in Bihar, and has been implemented in other states. However, even in states with a ban, the use of plastic continues unabated. In addition, there is often confusion on the ground regarding interpretation of the ban i.e. is it a blanket ban, or ban on plastic above certain density as measured in microns?

TARA – Technology for Rural Action and Advancement – is a social enterprise that has been creating handmade paper bags in Orissa, under a sustainable livelihoods program that it runs with Sahariya tribal women. While handmade paper bags may be costly for everyday use, production of takeaway paper bags may also be explored. For example, Apang Seva Niketan, an NGO in Dhantoli, Nagpur works with physically challenged men and women hailing from nearby localities to make paper or cloth bags that can help save and protect environment. Each month, the NGO makes about 70,000 to 1 lakh paper bags and 200 to 500 cloth bags and, depending on the size, the bags are priced from ₹5 to ₹15. The idea is to replace plastic bags with cloth or paper bags in shops and stores and to help disabled people lead independent lives.

These models can be visited to understand the technology used to recycle waste materials and create paper, in the process adding jobs for and empowering many impoverished women.

Yet another employment avenue that can be explored is engaging women in the production of solar cookers and solar panels. For instance, the Sakhi Unique Rural Enterprise (SURE), Maharashtra is a rural distribution and marketing company working with rural women entrepreneurs (nearly 5,000 Sakhis), and marketing green products like improved cook stoves, solar lanterns, biogas, solar water heaters. Similarly, the Barefoot College in Tilonia, Rajasthan has created a Society of Women Barefoot Solar Cooker Engineers. The Society comprises mainly illiterate and semi-literate

Innovative models for women's self employment from other states, like TARA from Madhya Pradesh and SURE from Maharashtra, may be replicated in Bihar

women who fabricate, install and maintain parabolic solar cookers in their homes. The parabolic solar cooker is constructed from 300 mirrors that reflect the sun's rays onto the bottom of a cooking pot to cook food quickly and sustainably. Women who once spent long hours searching for firewood can spend their time on other productive activities. Communities with solar cookers can expand their livelihood opportunities and limit the negative effects of deforestation and pollution.

3.3. RECOMMENDATIONS FOR EMPLOYMENT IN TRADITIONAL OCCUPATIONS

As a first step, the government should identify the skills and traditional arts in which women are engaged and the numbers of women who are doing it. Among the well-known artisanal products that are unique to Bihar are: Mithila painting; Sikki and bamboo products; Sujani; Khadi; Tussar silk; Lac products; wool-weaving; cotton-weaving; and jute products. As indicated earlier, these traditional occupations are focused in geographic clusters. These need to be identified, and a census of households engaged in these crafts needs to be conducted. Moreover, analysis is required of the value chain of production of each of these traditional arts in Bihar, and to what extent women are engaged in the chain.

Among the first such crafts identified by WDC for scale up is the dying art of the Baavanbuti saree. The Baavanbuti is a traditional saree created by weavers in the Nalanda region of Bihar. The saree is similar to the Jamdani work of Murshidabad, Manipur and Banaras. The point of difference is the number of motifs. Unlike Jamdani, in Baavanbuti the motif is restricted to 52 in number and hence the name. The handloom is made of both cotton as well as silk. Raw material is easily accessible to the weavers from different parts of the state. The time to manufacture one saree varies with the complexity of the motif design and range from 5-15 days. At one time considered a must in a bride's trousseau, the saree has lost its market to other traditional sarees because of its simple design and inability to scale up.

Baswan Bigha and Nepura in the Biharsharif block of Nalanda district are villages that hold the root of this handloom tradition. The villages are located about 12 km from Rajgir. Apart from their historic significance, the villages are also known for their Tussar Silk weavers. Pit loom weaving and thigh reeling is still prevalent here. Baswan Bigha is particularly famous for its cotton weaves. In the trade of Baavanbuti, most of the preparatory work like bleaching, opening of the cocoon for the silk, stretching and winding, and women and children do other thread related work, and weaving on the looms is done mostly by men.

Unfortunately, the Baavanbuti tradition, which was once the pride of the area, has virtually ceased to exist. Most of the weavers complain of lack of finance and marketing linkages for the product. Further flooding of the market with mill made textiles has severely affected the handloom sector, which no longer considers this tradition as a livelihood that can be passed from one generation to another. Due to lack of regular and profitable income from this art, the number of weavers involved in manufacturing of this fabric has reduced drastically in past years. Presently approximately 10-15 weavers/families are involved in this handloom work in Baswan Bigha village. The skill of weaving Baavanbuti is insufficient for these weavers to support their family and hence during the farming period these weavers are engaged in agriculture as a primary source of livelihood.

It is not as though no attempt has been made to revive the Baavanbuti. The weavers are members of a cooperative society (not under Jeevika). The female members are part of SHGs being promoted by Jeevika, which helps them in having access to finance. Efforts to upgrade the skills of the weavers and introduce new designs were made by the late Shri Upendra Maharathi. Now his daughter, Smt. Mahasweta Maharathi, is following in his footsteps, trying to preserve crafts like the Baavanbuti through the Upendra Maharathi Shilp Anusandhan Sansthan (UMSAS). Established in 1956, the Institute conducts product development, research and

training activities and aims to safeguard the languishing crafts of the state¹⁵.

In 2009 Delhi-based Asian Heritage Foundation (AHF), aided by the World Bank, and Japan Development Social Fund gave the weaves of Baswan Bigha an international makeover. Designer Rajeev Sethi, Chairman of the Asian Heritage Foundation, led the effort of reviving hand-spinning traditions. Project Consultant, Designer Rita Kapur Chishti and Project Designers Pradeep Pillai and Hitesh Rawat worked with the weavers of Basawan Bigha to prepare new designs. Even though the project got over in 2012, the AHF and one of the designers, Pradeep Pillai are still in touch with the weavers in Baswan Bigha.

The weavers in the two villages have manufactured Baavanbuti handloom for FabIndia, Asian Heritage Foundation and individual export houses. AHF designers come to these weavers with their design, camp there and go back with the finished product. So the handloom is customised and as per their design. FabIndia had a contract with the weavers but only for one assignment. With FabIndia, the design requirements are stricter. Weavers need to adhere to their design specification, and any divergence can result in rejection of the finished product thus causing financial loss to the weaver. This was the reason because of which the contract from FabIndia could not be renewed beyond the first assignment.

All of these efforts, however, remain one-off. Baavanbuti has not been able to achieve the recognition it can, thereby advancing the fortunes of those involved in its production, like other weaves and crafts such as the Chanderi, Madhubani, Jamdani or Ikat. Only few, select

weavers of Nepura and Baswan Bigha are currently engaged in producing fabrics based on traditional Baavanbuti pattern of weaves.

3.4. RECOMMENDATIONS FOR THE MORE FORMAL, SECONDARY AND TERTIARY SECTOR

Very few women are in salaried jobs in Bihar. The Government of Bihar on its part is trying to open avenues for women in formal employment through 35 % reservation for women in government jobs in the state, at all levels. One potential area for improvement is the banking sector. It has been established that female clients are able to use their accounts better if interacting with women, both those who are hired as bank employees and those who operate as financial intermediaries. In a study to evaluate the impact of unconditional cash transfers in Madhya Pradesh, it was found that in villages with female financial intermediaries (who were known as vitya sathis), women ended up depositing more of their savings in bank accounts (64%) as compared to women in villages that did not have such an intermediary (24%) (Davala et al, 2015). So there is definite scope for improvement – women constitute only 11.7% of the total bank employees in Bihar, much lower than 21.7%, as found in the all-India level (GoB, 2017).

Besides banking, manufacturing industries may also employ women. For industries such as textiles, two models may be followed – home based production (for which SHGs are a better solution) and factories (export processing units and zones). The latter like the one created in Tirupur, Tamil Nadu is preferred. However, over time, share of women in such zones has been declining. Men take over as skilling requirements for workers increase. This has been found as a risk both in the Tirupur and Delhi model wherein women are concentrated in the lower categories of work in garment production and are often discriminated against in wages. The other constraint, going forward, is finding women with at least primary education. Some

Just **11.7%** of total bank employees are women in Bihar, much lower than the **21.7%** across India

¹⁵. For more details, please see <http://www.umsas.org.in/>

managers may prefer female workers, but may find a local shortage of educated women, say to be employed as supervisors. One should also note here that this 'preference' for women has been linked – directly or indirectly – to their exploitation. Tirupur and other garment manufacturing initiatives have been criticized for this. Where they differ from the garment export model in Bangladesh is that besides creating employment for women, Bangladesh also emphasized on their education, so they could move up the value chain in factory jobs.

Bihar can plan and train its women and young girls in skills that may be required in newly set up industrial units. Haryana has done this effectively. Even as it sanctioned new steel and plastic engineering plants, it made conscious efforts to enrol its young women simultaneously in skills training programmes, say, in stainless steel application which could help them gain the skills and knowledge needed to land secure jobs in the steel industry. Similarly, it is offering specialized vocational training courses for young women on plastic engineering. Given that the State Investment Promotion Board (SIPB), GoB has recently cleared several proposals for industries looking to manufacture PVC pipes – which can be used to meet the state's commitment of providing piped drinking water and toilets to all – Bihar can train its young women in applications which can be used in this sector.

Women lack social networks; a special drive is needed to give them information so they can connect to potential employers. Haryana provides information and counselling sessions on career options for its ITI female students through Career Guidance Counselling Centres (CGCCs). Punjab has organized, in the past, special job fairs for women in partnership with ITIs to connect young women with industries. The state of Maharashtra has organized mega job fairs in Amravati, both for men and women, connecting them to private sector companies, vocational skills providers and government. Uttar Pradesh has held special job fairs for



women on Women's Day. Similar initiatives may be planned for Bihar.

Ultimately, women's engagement in so-called 'non-traditional' occupations may help break social restrictions and norms around women's work; women in these occupations may serve as role models. To illustrate, all women petrol pumps run by the organization Sheroes and all women staffed railway stations (e.g. the Gandhinagar railway station in Jaipur), are breaking barriers in what are traditionally male bastions. To its credit, the GoB has initiated some measures to step up women's involvement in such occupations. For example, an exemption of 100% is allowed on vehicle tax for the three-wheelers, taxi, motor cabs, maxi cabs that are registered in the name of women and are operated by them. The state government has also decided to raise a new women battalion in Bihar Armed Forces and establish Women Police Stations in all the districts of the state. A reservation of 35% is given to women in direct recruitment for the posts of constable and in appointing junior inspectors in the police force. Further, there is a proposal to establish a special battalion consisting of scheduled caste women (GoB, 2017). These efforts need to be lauded and publicized through the vernacular press in hard to reach rural areas, where young girls may have such aspirations, but may find themselves at a loss on how to achieve them. ■

Enabling Conditions

4.1. FINANCIAL INCLUSION

Women's exclusion from the formal financial ecosystem is vastly disempowering. Women in Bihar, more so in the informal economy, are not part of the financial mainstream and remain 'excluded' as not worthy of financial services. Lack of financial inclusion is a form of disempowerment because women's exclusion from the formal financial networks means that: women have no safe place to save, and are unable to save to build capital for the future; women often cannot access credit at all, due to lack of ownership over assets to offer as collateral; women are heavily dependent on local moneylenders for credit, and thus exposed to being cheated, undignified treatment, high rates of interest and a loss of a major part of their income; women use unreliable, informal sources for receiving remittances from family members who have migrated to urban centres, exposing them to high costs and cheating; women have no insurance to take care of the financial burden during times of personal crises, such as illness or death in the family, which often pushes them into a downward spiral of poverty; they have no pensions or financial support in their old age and are often unable to access Government programmes and so are unable to obtain needed

social protection; and women are unable to access any benefit of Government schemes or financial services by mainstream financial institutions because they often cannot satisfy the 'Know Your Customer' (KYC) norms prescribed by regulators, as they rarely have independent identity or identification documents.

The problem has not been solved with the introduction of Government of India's "no-frills" Jan Dhan bank accounts either. Opened with much fanfare, many of these accounts remain inactive. At 48%, India has about twice the average of 25% (for developing economies) of inactive bank accounts, reports the Global Findex 2017.

SEWA Bharat, which has done an extensive review of the state of financial inclusion for women in Bihar, proposes a multi-pronged strategy with the following key recommendations (for more details, see SEWA Bharat, 2014):

1. Gender-disaggregation of data to ensure correct targeting and design of programmes, and monitoring of results: The non-availability of sex-disaggregated data on key parameters is a major handicap to solving this problem.

2. Identification of Gender Constraints: A system and society that is fundamentally patriarchal – and therefore prejudiced against women – severely impedes their ability to access even those government schemes and programmes that have been aimed at the poor. For instance, the Kisan Credit Card (KCC) is invariably issued to adult male members of a household, as the title deed to the land is usually in their name; the Know-Your Customer (KYC) Norms are very difficult for women to comply with as documents such as residence proofs, land and house titles and utility bills are almost always in the name of the male member in the household. Women also change their residence after marriage and it takes a long time before they can obtain any proofs in their marital home. It is therefore imperative that KYC norms for women be redesigned to take into account such societal realities.

3. Reducing distance to Financial Institutions:

Distance is often a constraint for women to access financial services, which is why SHGs, that are within the village are so successful. It is important to devise effective methods of doorstep banking – especially the system of Banking Correspondent Agents or BCAs. The regional imbalance of banking services in Bihar should also needs to be addressed by opening bank branches in underserved districts and blocks.

4. Increasing women's financial literacy: Financial literacy is the bedrock of financial inclusion. It not only helps in creating awareness of financial services among the financially excluded, but also makes customers aware about their rights and responsibilities, increasing their ability to hold service providers accountable. Increased financial literacy also creates increased demand for financial services by excluded groups creating a win-win situation for both customers and financial institutions. Financial institutions, governments, voluntary organizations and BCAs all have a role to play in this agenda.

5. Increasing the banks' credit benchmark for women from the current 5% to 33%: This



needs to be complemented with new and renewed way to reach women customers.

6. Making banks more accountable towards the spirit of financial inclusion by encouraging them to move beyond opening of accounts and focusing on keeping the accounts operational: The CDR (Credit-Deposit Ratio) of banks in Bihar is among the lowest in the country and the State Government needs to build consistent pressure on banks to improve this through proactive measure of increasing credit off-take from banks by providing credit-guarantee to projects in priority areas.

7. Revamping the Business Correspondent Model: The BCA model, which uses technology and a doorstep-delivery approach, is key to spreading financial services to the last frontier. However, by and large, it has struggled to remain viable largely due to lack of scale and scope of services that a BCA can provide; and the lack of timely technical support from banks in case of technical trouble in handsets. These need to be addressed with more pilots to engage corporate and retail networks as BCs, expanding the scope of banking services that can be delivered through BCAs to help them achieve viability early and increase the

Increasing women's financial literacy and revamping the Business Correspondent Model, are just some of the ways in which women's financial inclusion can be improved

attractiveness of the job. There is also the need to focus on engaging more and more women as BCs as poor women customers are much more comfortable with them.

8. Involving Post Offices: The Postal network plays a key role in mobilizing rural savings and must be engaged proactively to do this. There is an urgent need for a revamp of post offices as centres of financial integration through computerization, virtual networking up gradation to biometric authentication of customers, relaxation of the requirement of bringing along a fellow customer for establishing identification and simplifying account opening procedures for SHGs.

9. Using Technology: Technology offers tremendous potential to lower transaction costs of delivering financial services and addressing many of the obstacles women face due to constraints in their mobility or in their social interactions. Advancements including mobile banking should be must be harnessed to move towards branchless banking, as women have to incur substantial costs in order to access formal financial services.

10. Promoting Women's Thrift and Credit Co-operatives to ensure that the scope of financial inclusion is not confined to linking the excluded population only with banks and other large financial institutions. Thrift and credit co-operatives run by women can also address their financial needs, perhaps better than many mainstream financial institutions. The government can support these by promoting their formation, and providing financial support for capacity-development and technological upgradation.

4.2. DIGITAL LITERACY

A lack of awareness of digital technology and the inability to access it is a significant barrier to life and work in an increasingly digital world. Google, TATA Trust and others have made a strong start that needs to be encouraged and emulated.

Technology plays a key role in women's economic and social empowerment. Digital literacy is the first step to enable women to access such technology and in turn enable them to have access to education, access to employment and access to equitable resources. It is also a tool for access to information, essential to equipping them with the power (and tools) to make decisions, and fight against societal discrimination and therefore live in a violence free domestic environment.

The Telecom Regulatory Authority of India estimates that only 30% of India's online users are women. In rural areas, this number drops to 12%. In its report on 'Decoding Digital Consumers', the Boson Consulting Group estimates that "India will have more than 850 million online users by 2025, more than the combined population of the G7 countries". The increase in the number of Internet users will result in a large increase in the amount of digital commerce that the country will see. By 2020, half of India's Internet users will be rural and 40% will be women. The BCG asserts that in light of this, Indian companies are underestimating and under-investing in the country's digital potential. While true of Indian companies, this is also true of the Indian government. If the government and its partners do not invest in this growing sphere and equip its most marginalized with the right tools, many of them will face massive missed opportunities.

India may have crossed 1 billion mobile subscriptions mark in 2016-17, but they are not unique users and only indicate the number of SIM cards sold. While access to mobile phones in rural areas is rising, the gadget availability and network connectivity is still very dismal.

Reaching out to women and girls at the bottom of the pyramid requires more than merely

ensuring access to ICTs and broadband networks. Women need training to become digitally literate. Digital literacy training opens the door to other essential skills needed to operate in a broadband environment, including financial literacy skills, as well as career training and ICT-enabled career training. Such training enables women to set up online businesses, or to use broadband services, such as social networking sites, to enhance their ongoing livelihood and economic activity. One way of expanding such training could be through Common Service Centres set up under the Digital India program – called Vasudha Kendras in Bihar – which can help provide digital training to women.

In light of this, Internet Saathi – a Digital Literacy Programme was launched as a collaborative project with Tata Trusts, PMG and PHIA Foundation as a pilot project in 96 villages of Korha block of Katihar district of Bihar in June 2017. The key objective of the project to eliminate the gender digital divide in digital literacy and equip women with digital skills in order to ensure participation of women in the digital economy.

The project plans to achieve the following short-term changes among the women beneficiaries of the project:

- Increase the access of women over digital resources
- Help women to explore various uses and benefits of the internet
- Generate awareness about several internet based information/schemes provided by the government
- Facilitate use of the internet by women in accessing such schemes and information for themselves as well as their families
- Generate awareness on issues around education, health, and sanitation
- Train women on digital transactions including various options available for making cashless

The TRAI estimates that only **12% of rural India's internet users are women**

payments in line with the Government of India's digital drive initiative.

Over 30,000 Internet Saathis, equipped with smartphones and tablets, are working across 110,000 villages, helping women in their own and in neighbouring villages to learn how to use and gain from the full potential of the Internet. Each Saathi is trained for two days by Google and spends the next eight months interacting with rural women.

Most of the programmes under this revolve around a curriculum that includes retail marketing, net banking, and various schemes for farmers and women. Every Saathi invests in training at least 150 women, most of whom set up independent businesses, or learn a new vocational hobby that enables them financially.

A key factor that hinders the growth of digital access is basic education. Therefore, it is essential to see digital literacy as complementary to efforts being made under basic education and skilling programmes for women. An integrated approach must be found between these efforts to reap their true benefits.

The role of private sector is also important and it needs to be incentivized to develop infrastructure, provide services and promote digital literacy as part of their business efforts. Lowering the average cost of broadband connectivity is also important as high internet prices discriminate against who, on average, earn less than their male counterparts do. Finally, providing training content and website content in native languages is another way to enhance women's access to technology.

4.3. SAFETY IN PUBLIC SPACES AND MOBILITY

Bihar performs poorly on parameters of women's safety, deeply affecting their ability to engage in the economy in a productive manner. The State Government has shown policy commitment to this agenda through targeted schemes – some of which face challenges of implementation. Violence and discrimination



can hold them back from playing a full part in the workplace, society and the economy. Freedom from violence, harassment and discrimination are critical to removing barriers of an unsafe environment and are vital to women's ability to fulfil their potential at work.

However, the World Health Organization estimates that about 1 in 3 (35%) of women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime. The importance of protecting women's rights is recognised in the UN's Sustainable Development Goals (SDGs), particularly those on Gender Equality (SDG 5) and Decent Work and Economic Growth (SDG 8). Plan India's Gender Vulnerability Index released by the Ministry of Women and Child Development presents dismal results for Bihar. With a GVI score of 0.410, women and girls in the state are believed to be most vulnerable here, less healthy and poorer when compared to those in the 29 other states.

Data released by National Crime Records Bureau (NCRB) lately showed Bihar at the eleventh position among all states and Union Territories in terms of crime against women. In 2014, the state was ranked eighth. Crimes captured by this survey include kidnapping of women with the intent to compel them for marriage, dowry deaths and rape. Interestingly, the data revealed that not a single case of sexual harassment of

woman at workplace and in public transport was registered in Bihar in 2015. This is not surprising given the stigma attached to reporting such cases in patriarchal societies.

In addition, while the crime records bureau data for Bihar shows lower crime rates, dowry deaths remain high. This may be because dowry results in death and has to be reported while other crimes such as rape do not always result in death and go unreported.

The State Government launched a "safe city surveillance" system in 2017 across Bihar to check sexual harassment and crime. Implemented in phases, the programme began in Patna to check "eve-teasing" at public places and crime control. CCTV cameras were installed under this programme with an overall spending approval of ₹111 crores. The scheme envisaged that the network of CCTV cameras will be connected to a control room that will be monitored 24x7 by police personnel, who will continuously liaise with those on duty on the ground, all the while anticipating and alerting them about possible situations. People apprehending trouble and danger could also alert the control room, which will initiate action. The CCTV net around the public places will also help track miscreants. Given the policy and budget push on this, it will be useful to assess its progress so far.

Going forward, the state government may also consider introducing applications such as Himmat app, an initiative by the Delhi police for women in distress. Himmat is an android emergency application, which can send a distress call or emergency message to Delhi Police officials and a specified contact or group in an emergency faced by a woman. The Police personnel will get these SOS alerts and locations on a portal and as an SMS on their mobile phones as well. Delhi police recently upgraded the app to widen the range of safety features particularly for female commuters at the Delhi airport and five metro stations. For example, now users of the app can scan the QR codes of taxis, auto-rickshaws and e-rickshaw drivers to verify their

details and establish their authenticity, thereby acting as a deterrent to crimes against women.

The State's Mukhyamantri Nari Shakti Yojana (MNSY) has also contributed to the safety agenda through interventions such as a Women's Helpline and Short Stay Homes for women. A Rapid Assessment (evaluation) of the MNSY has shown that the helpline operates in all 38 districts of Bihar offering the much-needed support to women survivors of violence (Centre for Catalyzing Change, 2017). The Project Manager for the helpline in each district has been appointed as the Protection Officer under the Protection of Women against Domestic Violence Act (PWDVA) 2005 thus providing a single window of services to women in distress.

Another critical component linked to the Helpline is Short Stay Homes (SSH) established across the state. The major objective of setting up the homes is to protect women and adolescent girls from human trafficking and to provide protection and security to women survivors of domestic violence. It also aims to protect and rehabilitate women and girls in difficult circumstances who need immediate shelter. Rehabilitation and Training Officers (RTO) have been specially appointed to facilitate this process. The short stay homes are functional in 34 out of 38 districts in Bihar.

MNSY also provides for working women hostels to provide safe and affordable accommodation to working women so that they are able to pursue their livelihoods within an enabling environment. In addition to this, it has established crèches, protection homes and remand homes. However, many of these face issues of lack of privacy, inability to provide for mobile workers, limited centres and paucity of funds.

The evaluation report recognizes that violence against women has been a key area of intervention for the programme and there has been considerable success under this pillar. However, it emphasizes that it is important to continue to invest efforts here to strengthen the institutional response and transform community

norms, focus on primary, secondary and tertiary programming for ending violence against women, namely shifting cultural norms biased against women and girls, equip and resource police and support services; generate options through rehabilitation packages incorporating legal aid, shelter and livelihoods.

It is important to build structured awareness programs for shifting norms on domestic violence, dowry, child marriage and awareness of the law and support services. In addition, focus on Social and Behaviour Change Communication (SBCC) combined with role modelling by Key Influencers in the public domain. It is important for the MNSY to engage more effectively with Gram Panchayats to deliver on zero tolerance villages for violence, and child marriage free Gram Panchayats. Another realignment suggested is to respond to the most pressing needs of young women: for instance how to deal with cyber bullying and cybercrimes, which are emerging as a new form of violence against women.

The MNSY evaluation report further notes that the following can strengthen the effectiveness of the programme:

- Capacity building of Front Line Workers and counsellors at Helpline; awareness of Domestic Violence Act and services for women, values clarification, counselling skills, and offering options, breaking down inhibitions about communicating on violence matters
- Integrating violence related services – screening, basic counselling, referral linkages and performance monitoring activities
- Strengthening the referral chain – between FLW and counsellors and referral services (medical, police, legal, helpline)
- Improving quality of services at the Helpline – emphasis on privacy, mentoring support

Finally, over and above such specific programmes and interventions, the state needs to strengthen its basic policing and law and order management systems. In the absence of such reform, individual initiatives will not be able to provide women with a safe and secure working environment in any sustained manner. ■

Concluding Reflections

This report identifies scarcity of suitable jobs as a key explanation for the low and declining female labour force participation in Bihar. Primarily, remedy needs to come from creating new job opportunities, including regular part time jobs, especially in newly urbanizing areas. “Supply-side” interventions such as delaying marriage and increasing girls’ retention in higher education and university can be helpful over the long term. Ultimately, a combination of gender-targeted policies that lower constraints on female labour force participation and reforms that boost formal job creation are likely to improve gender equality in the labour market and lead to gains in GDP and in employment in the state (World Bank, 2017).

More specifically, constraints on sectors that draw in female workers in Bihar, such as dairy, need to be removed. Women’s self-employment ventures also need to be encouraged, given that they prefer such employment. Simultaneously, and given the government’s emphasis on girls’ education, Bihar needs to provide facilitating factors so women that are more educated can join

the formal workforce. These may include better-implemented policies around childcare facilities at the work place, maternity leave and greater emphasis on improving the safety and mobility of women. Finally, norms around women’s work need to change. Das and Zumbyte (2017) note that change in norms often follows strong policy interventions. The government could signal a more enabling vision for women through public information campaigns that value women as workers. Such campaigns have been effectively used in India and elsewhere to improve female LFPRs.

It is clear that women in Bihar want to work, but are curtailed on the one hand by their domestic duties, and on the other, by lack of jobs that allow them flexibility at work. In sectors where they do work, such as dairy, their effort goes unrecognized. It is hoped that the suggestions contained in this report help the state realize its vision of increasing female labour force participation and women’s economic empowerment – through good quality jobs, decent working conditions and equal wages - fulfilling the aspirations of thousands of women and girls in Bihar. ■

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