

**Report on Occupational Safety and Health (OSH) Status of
Urban Home-Based Workers in Maharashtra:**

A study in Nashik and Solapur



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Dedicated to all home-based workers of India

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Introduction

According to the ILO (1996) Home Work Convention C177, home based work is work carried out by a person

- in his or her home or in other premises of his or her choice, other than the workplace of the employer;
- for remuneration;
- which results in a product or service as specified by the employer

In this study, we use the term home based work to include both piece-rate workers and own-account workers. The former are end workers in a large value chain, whereas the latter have much shorter backward and forward linkages. As an example of piece-rate workers, home based embellishment workers engage in 'job-work' wherein a middleperson delivers the stitched, pre-embroidered fabric and provides materials for hand-sewn embellishment, specifies the pattern required to be done on the garment and picks up the completed order the same day or next. Neither the worker nor the middleperson is aware of the end-employer or end-customer with whom the garment will eventually end up. This applies to the tens of thousands of items made in the slums for a larger supply chain. On the other end of the spectrum are individuals who run a home based mess service, which serves cooked meals to clients within the slum area, manage their own finances, buy their own ingredients, and have a direct link to their end-customers.

Homenet South Asia¹ estimates that women constitute approximately 80% of a total of around 50 million home-workers in South Asia. A report of the ILO (2013: xii) states that home-based workers constitute 18 per cent of the urban workforce in India. A WIEGO² study conducted by Raveendran, Sudarshan and Vanek (2013: 4) suggests that in 2011-12, 16.05 million women workers in India were engaged in home based work, of which 7.34 million were in the urban areas. Clearly, they constitute a huge and dispersed workforce. They live and work in challenging circumstances, earn paltry sums for their work and face several occupational hazards. The work itself tends to be monotonous, labour-intensive and isolating; especially so, if done alone and not in a group.

One aspect of home based work that distinguishes it from other informal economy trades, such as street vending or rag-picking, is its relative invisibility. Their work is undertaken at home or in common community spaces within their low-cost urban settlements. As a result, they remain invisible and ignored by fora for representation such as local trade unions or national trade union federations. With the exception of SEWA at the national level, and smaller initiatives by

¹ Homenet South Asia, established in 2000 following the Kathmandu Declaration, is a regional network of home-based workers' (HBWs) organizations in South Asia. It was formed to give visibility to home-based workers and their issues, to advocate for national policies, to strengthen grassroots and membership-based organizations of home-based workers, and to create and strengthen South Asian networks of home-based workers. See: http://www.homenetsouthasia.net/about_us.html Accessed on 31 Jan 2016

² Women in Informal Economy Globalizing and Organizing (WIEGO) is WIEGO is a global network focused on securing livelihoods for the working poor, especially women, in the informal economy. We believe all workers should have equal economic opportunities and rights. It creates change by building capacity among informal worker organizations, expanding the knowledge base, and influencing local, national and international policies. See their website: wiego.org

membership based organisations at the local level, home based workers are relatively invisible, under-researched and largely unrepresented.

A characteristic feature of home based work is that there is no formal employer-employee relationship. This is an important dimension of home based work. An employee 'going to work' in her office, or to a factory shop-floor, or a bank, has several indicators of official identity as a given. The principal employer is known to workers, irrespective of their employment status (permanent, contract, temporary, casual, trainee etc.). This is not so for the home based worker tied into a value chain. She is not aware of the end employer, which is ultimately to her disadvantage. As Mies (2012: 59) in writing about the lace-makers of Narsapur village states, 'The political-economic function of the separation of the sphere of production from the sphere of reproduction and the definition of women as housewives seems to be to create a readily available and disposable labour power whose day-to-day reproduction as well as its unemployment will not be the responsibility of either the capitalist, or the farmer or the... merchant.'

In addition to remunerative home-based work, these women perform all domestic chores and look after their families' needs, their children's education and cleanliness of their homes. However, this work is neither counted nor valued, and is almost always taken for granted. This devaluation also extends in the remunerative work that the women perform within the space of their homes. Field findings indicate that most home-based workers and their families consider their work a pastime activity done to kill time, frequently referring to it as 'timepass'. Therefore, the workers hardly consider themselves as workers and earning members contributing to the household.

Rationale for OSH Study

Over the years, LEARN's work in the urban informal sector has shown that most home-based workers develop several ailments by virtue of their work. Since home-based work is not considered 'work' by them and their families, they also tend to ignore the symptoms of these ailments. They may complain informally, but do not take concrete steps in getting these diagnosed or subsequently treated, because they ignore their personal health-problems and also wish to save money by avoiding a visit to the doctor. Hence, we see a cruel cycle in which poverty forces women to engage in low-paid home-based work, which then causes them to develop serious health problems, which they ignore to save money. It is no surprise that several of these home-based workers end up with conditions such as near-blindness, spondylosis, gastro-intestinal ailments and muscle-pain. Long hours of sitting or standing in one position, no movement of larger muscles simultaneously as excessive use of fingers and eyes, lack of ventilation and illumination; all contribute to the gradual erosion of their bodies. As we shall see in the subsequent sections, these women perform work amid grueling conditions.

There have been no focused studies on the occupational safety and health status (OSH) of women home-based workers in urban slums of India. This study was conceptualised as a way of addressing this gap. The study was conducted by Labour Education and Research Network

(LEARN) in two districts of Maharashtra, namely, Nashik and Solapur. It was supported by HomeNet South Asia (HNSA).

Limitations of the Study

Secondly, even though the study has a large sample of 500 workers in each city (Nashik and Solapur), most of these are LMKS members and therefore from areas where LMKS has its membership. It does not claim to be representative of all the activities performed by home-based workers in the entire city. However, as the patterns in the present study would indicate, certain ailments are common to all home-based workers. Additional studies are required to append the present one, not only to add to the diversity of trades and health ailments associated with them, but also to find the specific ailments associated with certain types of home-based work, and provide a rating of its hazardous nature.

This study only looks at the occupational health status of home-based workers. It does not delve into the details of the workers' medical history, such as women's existing conditions or certain hereditary ailments or problems due to other work performed by them (paid and unpaid) other non-work related health problems they may have.

Methodology

The OSH survey was conducted in Nashik and Solapur districts from Apr-Jun 2014 to assess the status of occupational safety and health of women home-based workers in the two districts. Most respondents were members of the union, and some who were not, were made members through the course of the study. The fieldwork and data collection was done by grassroots activists of LEARN Mahila Kamgar Sanghatana in both districts. Prior to conducting the survey, the teams in LMKS Nashik and Solapur had multiple rounds of detailed discussions regarding the components of the questionnaire (See Annexure 1), the geographical areas to be covered, and short training sessions by researcher-coordinators of LEARN on the use of data-collection methods and observation techniques as well as writing thick descriptions of the work-process of the respondents. The data collection began in Nashik in April 2014 and went on until mid-May 2014, after which, the survey was conducted in Solapur until the end of June 2014. A total of 1018 respondents were covered in the survey, of which 518 were home-based workers in Nashik and 500 were in Solapur. Of the 518 respondents in Nashik, we have dropped the discussion on the occupational health status of six workers who were engaged in flower-garland making, because they were found to be street vendors, not home-based workers. Hence, the findings from Nashik reflect the conditions of 512 workers engaged in 17 tasks. In addition to finding the status of health of home-based workers, the study had an additional motive of initiating preventive-health lectures and medical-camps based on the needs that emerged from the survey data.

The district-wise findings of this survey are presented below.

A. Nashik

As mentioned earlier, the survey in Nashik covered 518 home-based workers from 51 areas.³ As discussed above, only 512 of these respondents from Nashik have been considered for this study. Broadly, their work could be divided into 17 categories (See Table 1). These include tailoring, home-based mess (cooked-food service), fried-snacks making, finishing work for various industries (such as electrical and automotive industries), home-based vending (fruits and vegetables), home-based laundry services, Sorat-making, home-based beauty-salon services, packet-pasting, aluminum dron-making, flower-garland making, Toran-making, quilt-making, cotton-wick rolling, bidi-rolling, insecticide-packing, and soldering. Some workers perform a combination of home-based tasks, such as workers who do tailoring in the day, are engaged in tasks such as chocolate packing in the evening. Similarly, some others prepare fried-snacks in the morning and afternoon, followed by masala-packing in the evening. This helps us to appreciate the multifarious nature of poor women's work-day as home-based workers.

Table 1: Types of tasks performed by home-based workers in Nashik

Type of Task	No. of home-based workers
Tailoring	265
Home-based Mess (cooked food service)	56
Fried-snacks making	52
Finishing work (electrical and automotive parts)	26
Home-based vending (fruits & vegetables)	23
Home-based laundry	15
Sorat-making	10
Home-based beauty-salons	9
Packet-pasting (Box-making)	7
Aluminum dron-making	6
Toran-making	5
Quilt-making	3
Cotton-wick rolling	2
Bidi-rolling	2
Insecticide-packing	1
Soldering	1
Multiple home-based tasks at once	29
TOTAL	512

The details of each of the tasks, the process of conducting work and the respondent's ailments have been discussed below.

³ These areas were Aanvik Nagar, Ambad, Amrutdham Panchavati, Anand Nagar, Ashok Nagar, Audumber stop, Bajiprabhu Chowk, Balaji Chowk, Bhagat Singh Nagar Cidco, Bhagvati Chowk, Bhagwati Nagar, Chetana Nagar, Datta Chowk, Daulat Nagar, Ekta Chowk, Ganpati Chowk, Ganesh Chowk, Krushna Chowk, Lokmanya Nagar, Mahajan Nagar, Mahale Farm Road, Mhasrul Tek Panchavati, Morwadi, Nandanvan Chowk, Old Nashik, Hirawadi Panchavati, Pandit Nagar, Pawan Nagar, Phule Nagar Cidco, Prerana Chowk, Raj Ratna Nagar Cidco, Rana Pratap Chowk, Sadbhavana Chowk, Saibaba Nagar Cidco, Samarth Nagar, Saptashrunji Chowk, Sarveshwar Chowk, Shanti Nagar Hirawadi, Sharanpur Road, Shivpuri Chowk, Shramik Nagar, Shriram Nagar, Sinhastha Nagar, Sonawane Nagar, Swami Samarth Nagar, Tapovan, Tuljabhavani Chowk, Upendra Nagar Cidco, Uttam Nagar, Vrindavan Chowk Cidco and Wasan Nagar.

1. Tailoring (265)

Almost every second home in a low-cost settlement in Nashik has a tiny board on the side of the main door which in Marathi announces, 'येथे ब्लाऊज शिवून मिळेल', which means 'Blouses stitched here.' The number of tailoring workers in this survey (265 out of 518) also show that this is one of the most preferred form of work of female home-based workers. All tailoring home-based workers interviewed in this survey used sewing machines to make garments. In general, the stitching work is associated with sarees. They make saree-blouses, sew hems on the rims of sarees and sew like-coloured 'falls' at the base of the sarees. Of these tasks, making blouses requires the most amount of steps and time. First, the worker makes chalk-marks to indicate measurements on the blouse-piece, conceptualises some creative pattern for the back and sleeves of the blouse, then cuts this material, after which it is stitched on the sewing machine. Hemming the rims of sarees is the least skilled of these tasks, and sewing a like-coloured fall at the base of the saree is a semi-skilled one. In each of the three tasks, the tailor is required to sit on a chair with her legs hanging limply, her upper-back hunched over the sewing machine for long hours. This causes pain in lower-back, thighs, knees, calves, ankles, feet and toes. The upper-back develops a hunch, and their shoulders, wrists, hands and fingertips are continuously in pain. The long hours of sitting with minimal movement of the limbs cause pain in the stomach, hips and the pelvic region. Motor-operated machines cause frequent headaches and gradual loss of hearing due to the continuous noise generated by the machine (in addition to the beeping sounds). Evidently, the entire physical body of a tailor suffers from persistent full-body ache, and the lack of movement due to long hours of sitting causes other internal problems such as bowel disorders. Over a period of time, the continuous harboring of such ailments makes them chronic and causes irreversible damage.

2. Mess workers (56)

Mess workers are those that offer the services of providing cooked meals. Usually, individuals such as students, migrants or those staying alone and away from their homes, avail of their services. The common mode of providing cooked meals to these people is through tiffins. The tasks involved in performing mess work include buying supplies, washing and chopping vegetables, cooking thali-meals (including chapatti, vegetable, rice and dal), packing them in tiffins and supplying the tiffins to the subscriber. Most often the husband or children of the worker deliver these tiffins, but in some cases we have found the worker delivering the tiffins herself. Of all the tasks involved in providing this service, cooking takes up the most amount of time. Further, after their patrons have finished eating their meals, the tiffins are brought back and washed by the worker and her family members as well. Right after this task is over, they again begin their preparations for cooking the evening meals. Excluding the washing and cleaning time (which adds at least one extra hour to their workday); most mess-workers work 8 to 9 hours per day. Not only do these hours make their work strenuous, but the nature of their work also makes it hazardous. Take for instance the following: they get cuts on their fingers and hands while chopping vegetables, they feel suffocated with the heat and smoke generated while cooking and they experience burning of the eyes while sautéing spices. Further, their bodies are in different positions while performing different tasks. Mess-workers have complained of a series of occupational ailments, namely, pain in the lower body (waist, lower-

back, toes) due to longer hours of sitting on the floor cross-legged; and in the arms, shoulders and fingers due to chopping of vegetables, rolling of chapatis and other tasks such as cleaning and washing. Most often they stand while cooking meals in large, heavy pots and pans; which requires extending hands forward for making consistent circular strokes to stir and mix ingredients evenly. Making chapatis keeps the hands and fingers in continuous rolling motion which causes their fingers to swell. In addition, chapati-making burns their skin which causes it to peel frequently. The burning sensation in the palms can get so intense that some mess-workers find it difficult to fall asleep at night because of it.

3. Fried-snacks making (52)

Fried-snacks tend to be a seasonal affair, in that, the work is available only 5-6 months in a year. These months however are marked by high-activity and long hours. On an average, fried-snacks makers are found to be working 13-14 per day in the months of December to May during which their products are in high demand.

The products made by Nashik's home-based workers were papads, vermicelli and *kurdai*⁴

The process of making fried-snacks entails buying and prepping ingredients, cooking them, drying them and packaging. In the case of Nagli (Ragi⁵) papads, workers buy Ragi millet grains and soak them in water for two days. This is done so that dust and other impurities are separated from the millet-grains, and also to ensure that the items made with these millets are easily digested. After the two-day period, the ragi-millets are tightly packed in a soft cotton-cloth until all the water dries out. Once dried, the millet-grains are ground in a mixer-blender and then passed through a sieve to separate the grounds from the mixture. Oil is heated in a pan and to this are added sesame seeds, cumin seeds, poppy-seeds, asafoetida and salt. After these ingredients are gently tempered, the Ragi mixture is added to the pan, followed by water. The mixture is stirred evenly until it is cooked well. After some time, the warm mixture is kneaded with hands to make sure there are no lumps. It is then divided into smaller balls which are then rolled into papads. The papads are then laid on long pieces of cloth for sun-drying. The last step in the process is packaging of the dried papads in sealed plastic bags, with each bag containing 10 or 15 papads. The pricing is usually on the basis of kilograms, and the current rate (at the time of the survey) was at Rs. 200 per kg.

Making *Kurdai* entails cleaning and soaking wheat-grains for three days and then finely ground. This creates a milky batter, which is passed through a sieve to separate the skins of the wheat-grains from the mixture. Water is mixed with the milky batter and cooked until the batter stiffens up a little. The ready batter is then passed through a thin press in a circular motion (similar to chakli) which create the *Kurdai*. Similar to the Nagli papads, *Kurdais* are laid on pieces of cloth for sun-drying. After they have completely dried, they are packed for storage.

Let us see the case of a fried-snacks maker from Nashik, Kunwar.

⁴ Fried-snack made of wheat-flour. See for images: <https://foodcourt.wordpress.com/2007/06/11/kurdai-gavhacha-cheek-gavhachya-saalacha-upma-for-rci-june-maharashtrian-cuisine/> Accessed on 31 Jan 2016.

⁵ Also known in English as 'finger-millet'.

≈ Kunwar

Fried-snacks makers often operate in groups, and Kunwar is the leader of one such groups. Her team has 7-8 women who make papad, *Kurdai* and other fried snacks. From the months of December to May— considered the ‘season’ for fried-snacks— these ladies work for a staggering number of 15-16 hours per day. The work requires a tremendous amount of physical strength, causing pain in all parts of the body. Some members in Kunwar’s group also have arthritis, while most others complain of pain in the lower-back, shoulders, hands, joints, palms and stomach. Some also mention that they suffer from hyperacidity due to the nature of their work.

The home-workers engaged in making these popular snacks suffer a host of health problems. Firstly, the seasonal nature of the work means continuous long hours of strenuous work for 4-5 months back-to-back. The hectic activity takes a continuous toll on their bodies. Preliminary findings indicate that much of the time these workers do not prioritise their health complaints. But even if they were to do so, the fact that earning opportunities from making these snacks present themselves only few months every year, mean that they are forced to ignore or neglect their symptoms. They put their bodies and minds through tremendous amounts of stress to be able to produce and sell these products. Each of the steps in the process of making these snacks also produces ailments. For instance, lifting large volumes of the soaked-wheat and wheat batter causes pain in the ribs and chest. The chances of contracting hernias are also high due to the lifting of such heavy items. Some workers said that the pulling motion required in kneading of stiff papad-dough caused a strain on their arms. Further, the rolling motion while making papads caused pain in the shoulders and arms.

Often women slouch as they sit on the floor to roll the papads on a rolling board (*polpaat*), and this position is maintained continuously for a few hours. The posture itself causes stomach problems, spine problems and neck-pain. The *Kurdai*-makers complain of wrist-pain and finger-pain while expending extra energy to push the stiff *Kurdai*-batter through the press. They also complain about pain in the legs and arms due to long hours of standing and bending. Some respondents said that their arthritis made it difficult to move easily. Certainly, the long hours of being in a particular posture such as sitting or standing or bending did not help. Sitting cross-legged for prolonged hours causes pain in the lower-back and waist, neck, legs, ankles, feet and fingers. Almost all of the snack-makers complained of weakness and fever constantly, only made worse by lack of sleep. Our study indicates that in the ‘season’ for fried snacks, workers go on for as long as 20 hours a day, due to the heavy demand for their products. Upon asked the working hours, one of the senior respondents simply said, ‘मी झोपतच नाही’ (‘I just don’t sleep’). This hardly seems believable, but it must be understood that even though this worker might be taking naps, they are barely adequate to qualify as a healthy amount sleeping-hours. In addition to this erosion of their bodies, the lack of sleep also causes hyperacidity, low immunity and a foggy memory; increasing the risk of accidents due to poor concentration. It is no wonder then; that their bodies do not get a chance to repair or rejuvenate in the frantic ‘season’ period, causing a toxin-buildup enough to make them seriously ill.

4. Finishing work (26)

The areas considered in this survey were primarily those where LMKS had a considerable number of its members, which happen to be close to the industrial areas of the city called Ambad and Satpur. Not surprisingly, a large number of tasks performed by home-based workers are those of assembling parts of electrical and automobile goods. Since the product-range is diverse, it is not optimal to describe each of these in detail here. However, a case of one of the workers (from our previous research⁶) could be quoted to indicate the process of the work performed. The work-process is characterised by a number of steps and involvement of several women's work (and sometimes children too). They all complain of intensive back pain (upper-back and lower-back), neck pain, irritation of the eyes as well as shoulder-pain. As researchers, we observed that most of them worked in relative darkness while performing the work to save electricity, thereby using only natural day-light that entered their homes. This caused a strain on their eyes. They bent forward to be able to see clearly, which made them slouch and caused neck-pain. The following case is taken from Gartenberg (2011: 19-20):

“Sharada Kulkarni, 30, is a class 4 pass-out. This is hardly believable when one sees her assembling complicated electrical parts. Sharada makes a piece called ‘main’, which is a three phase contactor or a four pole AC contactor used for stabilising electrical load in the main switch board. As stated earlier, the Ambad area has many large and small electrical manufacturers, and companies like Schneider outsource the assembly of the smaller parts to other smaller companies in the area like Akash Udyog, who in turn outsource the assembly to home-based workers.

Sharada and her two children Pooja (14) and Omkar (10) had a vague idea about the name of this piece and its use. However, among them, the assembling task was highly systematic. Sharada's children were joined by their friends in the neighbourhood too. At first, the black plastic moulds are cleaned of any dust and the extra edges of the mould need to be removed with a small pocket knife. On the one side, Sharada starts to insert aluminum contacts in each of the four slots of the piece. She then inserts a small black plastic stick across the four contacts. Next, she lifts the aluminum contacts vertically and inserts springs under each contact slot. Then she brings back the vertical aluminum contacts back to its horizontal position. Finally, she puts a cover on top of the mould. For the next step, she is helped by her son. The piece that she has made goes to him, where he fixes and tightens screws at the end of each of the four slots. He uses screws that are simultaneously pre-fixed with fasteners by his sister and her friends. It takes roughly 5-10 minutes to make each piece and Sharada is able to make 150 pieces per day for which, she is paid at the rate of Rs.0.75 per piece. Sharada says that she does not allow her children to take part in performing these tasks when their school is in session, but allows them to help only during vacations. Her only recommendation to improve her work-life is having an electronic screwdriver to expedite the process of making the pieces.

Once Sharada's pieces are completed, she takes it across the street to her neighbour Alka Patil's house. Alka's home looks like a micro assembly unit. There are different types of electrical materials, moulds and sacks of ready material all in one central room. She is helped by her 20 year old daughter Ashwini, and neighbours; Priyanka (40) and Meera (35). Sharada, and others

⁶ See Gartenberg (2011), ‘Mapping Exercise of Homebased Workers in Maharashtra’ published by LEARN. Available at: <http://learn-india.org/>

like her in the same area, who have finished assembling their electrical parts, send them to Alka's house, where Ashwini has a challenging task to perform. She has to check each piece individually before approving it and then packing it in batches of 25. In the formal industry language, her task would be categorised as 'quality control'. The packing job is a tedious one, and therefore, one woman can sit to pack continuously no longer than an hour, after which the next person takes over. In addition to parts made by Sharada's family, Alka and the other three women in her home also make parts for servers, generators and battery backups. Alka's husband has a shop in the industrial area and gets these pieces for assembly. His wife brings them home for this purpose. Ashwini says that the forward linkage of these parts eventually leads one to ABB company in the Satpur area.

Meera, their next-door neighbour is seen to be involved in a highly intricate task. She sits cross-legged on the floor with a machine in front of her. She has to pick up tiny screws and place them in two holes on a small metal plate. Using one hand to arrange these items, her second hand is engaged in turning pressing mechanism on a riveting machine in a semi-circular motion. Her three-year old son roams about the work area as the women continue their work. Alka says that in the eight hours that they work, they are able to complete the processing, quality control and packaging of 1200 pieces among four of them, for which they are paid Rs. 60. During Diwali and other festivals, when the demand for electric and electronic goods is higher, they need to make higher volumes. They require a larger space so that more women perform these tasks together, thereby increasing their speed and the number of pieces made per day."

5. Home-based vending of vegetables (23)

Nashik is categorised as a fast-growing tier-2 city, but agriculture continues to remain an important part of rural and urban-dwellers of the district. The wholesale market for vegetables of Nashik city is located in the Panchavati area. Those home-based workers who depend on selling of vegetables and fruits from their homes, wake up as early as 4am to buy large supplies of these goods from Panchavati's wholesale market. They pack several kilograms of vegetables and fruits in jute sacks and carry these heavy bags on their backs. This activity is literally back-breaking work. They bring these supplies back home, segregate them and then sell them from their homes. More specifically, they lay the vegetables on a jute sack on a narrow parapet (*katta*) outside the main door of their home. Lifting the weight of these vegetables and fruits on the back causes them severe pain in the shoulders, neck and lower back. Some respondents also complained about peeling of skin due to lifting jute bags over a prolonged period and others mentioned respiratory issues as a problem due to inhaling of fine jute fibres.

There are also other home-based workers associated with this trade. They get orders to cut vegetables from restaurant-owners so that they can save their prep time in restaurants. For instance, one of the respondents mentioned that she would cut okra for a restaurant and was paid at the rate of Rs.1 per kg of chopped okra. The vegetables are collected by the home-based workers directly from restaurants. If they are going themselves, their travel is on foot. Sometimes they are helped by their young boys who go to the restaurants on bicycles. The same is true of returning the completed order of chopped vegetables. The payment is grossly

inadequate for the amount of work, and the associated ailments are pain in the back, neck and shoulders. Respondents also complained of swollen palms and frequent peeling of skin due to knife-cuts while chopping vegetables.

6. Home-based laundry services (15)

Home-based laundry work involves washing and ironing of garments and clothes. Almost all the workers we met hand-washed the soiled clothes that they received from clients, because they could not afford to buy washing machines.

Clothes are washed by squatting on the floor, and then dried on clotheslines. Hand-washing large quantities of clothes is a painstaking task; one has to squat on the floor, use huge quantities of washing powders which are loaded with chemicals, maintain a repetitive scrubbing motion with the hands, continuously dip hands in water and twist each piece of cloth tightly with both fists to squeeze out the excess water. The sitting causes pain in the lower back, scrubbing invariably involves slouching over the cloth and therefore causes problems with the neck-spine region as well as aches in shoulders and hands. Continuous exposure of the skin to chemicals present in washing powder and bleaching agents could cause ulcers and continuous dipping of hands in water can cause dryness of the skin afterwards. Twisting and vigorous flicking of clothes to drain out the excess water causes a strain on the palms, fingers and the shoulders. The motion of flicking clothes (झटकना) can sometimes cause a muscle-pull in the shoulders or arms.

For ironing, all the laundry workers in our survey used heavy coal irons, because the option of using electric irons entailed paying expensive electricity bills. Also, ironing work involves long hours of standing with hands outstretched to the ironing table which causes their wrists, neck, back, joints and shoulders to pain. Further, some respondents mentioned that they experienced numbness in their feet and spasms in their legs due to long hours of continuous standing (पायात गोळे येतात). The use of coal-irons greatly impacts the health of laundry workers. Firstly, coal-irons tend to be heavy and therefore require strength in the wrists and fingers, but lifting the iron every time to roll it on different parts of the garment causes strain on the neck. Second, the continuous inhaling of fumes from the burning coal can also cause a slew of dangerous respiratory and lung ailments.

7. Sorat-making (10)

It is best to explain the activity of Sorat-making through a case written in a previous research study (See Gartenberg, 2011: 23-24):

‘Gaya Satav, 35 and Manisha Pawar, 26 are involved in an unusual activity. They paste coloured bits of paper on a lottery chart while sitting inside Gaya’s house. Each of these tiny coloured papers must have in it a smaller square paper denoting a picture of one of the images indicated on the chart. For instance, a tiny square paper may carry the image of a bird or a sun. Gaya and Manisha spread some glue on their fingers and pick up this tiny square, paste it inside pink or blue-coloured paper which is carefully folded and then pasted onto the lottery chart. Gaya uses

a steel pan for keeping the glue and an old discarded toothbrush to spread the glue on the lottery chart. She walks up to 10 minutes every day to pick up around 30 charts and these materials for the day. It takes her 15 minutes to complete pasting on an entire chart of 240 empty fields. Manisha, on the other hand is new to the trade and requires 30 minutes to complete one chart. They are paid Rs. 1.50 upon completion of one lottery chart. Both complain of severe neck and back-aches, but they work at lightning speed as they speak. They think that the per-chart rate needs to be increased.'

Fingers and finger-tips get overworked in the case of Sorat-makers. Due to the use of glue, their skin around the fingers and finger-tips frequently gets peeled. This also causes them pain while they are performing other domestic chores. For instance, peeled fingers burn while they are cooking. Most Sorat-makers sit on the floor either cross-legged or bending one leg at the knee, to perform their work. This often makes them slouch causing intense ache in the back and neck, as well as pain in the eyes.

8. Home-based beauty-salon services (9)

Home-based workers who run beauty salons in their homes provide a series of services for their clients. These include hair-work such as cutting, styling and colouring, face treatments such as facials, cleansing and bleaching, massaging and other clean-up tasks such as threading of facial hair and eyebrows. Much of this work involves continuous standing and continuous use of fingers and finger-tips, which causes pain in hands and legs. The arms are outstretched in the case of most services, which cause severe shoulder-pain. Cutting hair is particularly strenuous because it requires outstretched arms bent at the elbow, with a pair of scissors in one hand and a comb in the other, and leaning the neck on either side for getting proper judgement while cutting or styling hair. Holding this position causes circular and continuous strain on the shoulders, head, neck, full arms, palms and fingers; as well as causes numbness in some of these parts. Sustained exposure to chemicals in all cosmetics (such as hydrogen peroxide, titanium dioxide etc.) can cause severe skin-related problems for beauty-service providers, in addition to the everyday incidences of peeling palms and fingers due to handling of these chemicals continuously. Beauty-salon workers also complain of eye-ailments such as watering of the eyes, irritation of eyes caused due to cutting hair and entry of finer hair in the eyes.

9. Packet-pasting / Box-making (7)

Packet-pasting workers make boxes for storage of agricultural products like seeds and pesticides. Their work is generally done in groups of 4-5 women. Each member of the group has a specific task assigned to her. The first step is that of folding the cardboards to make boxes out of them. This is followed by pasting the sides with the help of glue/ fevicol adhesive. Each of the pasted boxes is then pressed with the help of a hammer, in order to firm up the pasting of its sides.

Women sit cross-legged on the floor for about 7-8 hours per day to perform these tasks. This causes pain in the pelvic region, lower-back, knees, legs, ankles as well as neck and arms. Fingers are overused in all the steps. Excessive use of adhesives such as glue and fevicol causes peeling of the skin around the fingers and palms areas. The constant smell of adhesives in the

room causes headaches, colds and other allergies. They experience dizziness when they try to get up after having sat for such long hours.

Below is the case of a packet-pasting box-maker from Nashik, Devka Tawde

≈ **Devka Bapu Tawde**

Devka lives in Sarveshwear chowk of the Uttam Nagar area of Nashik. Every morning, she wakes up at 6 and performs all the daily domestic chores of cleaning, cooking and washing. After these tasks are over, she sits to perform her remunerative home-based task of pasting rims of cardboards to make boxes from them.

The work comes to Devka through her husband who works for an agricultural company. He brings this work home from the company. The boxes made by Devka are then used by him to fill up with either seeds or pesticides. Once the cut-outs of cardboards are brought back home by him, Devka and her neighbors fold them along the marked lines and paste them. They have been doing this work for the past 35 years.

Devka and her neighbours sit in smaller groups at four corners of the room, with a small table in the middle of each group. The glue bottle and wooden sticks are kept on these tables. Every worker in the group makes these boxes by first cutting the cardboard at perforations, then folding on the marked lines to create a box and then pasting all the corners of each box. After pasting these boxes, they are arranged in lots of 50 and 100. These lots are then inserted into large cartons and tied with rubber-bands. Each batch of 1000 ready boxes earns them Rs. 25. This means that for each ready box, they are paid Rs. 0. 025. They are aware that this is abysmally low, but continue to do it nonetheless.

Devka says that this work causes several health issues. After sitting for long hours performing this task, she cannot get up without feeling dizzy. She and her fellow workers also experience pain in the chest, shoulders, hands, hips, thighs, knees, calves and joints. Their skin gets peeled due to the excessive use of glue. This peeled skin acts up especially when the women are cooking and get exposed to heat. The burning sensation is so severe that they cannot sleep at night because of it. The continuous smell of glue makes them nauseous and leads to allergies, headache and frequent coughs. Continuous use of fingers also pain at night.

10. *Dron* (cup) making (6)

Drons are disposable cups made of aluminum foil. They are used by restaurants for packing food on order, by the baking industry as moulds, and also used by several religious places such as temples to give *Prasad* (religious offerings) to its pilgrims.

The workers in our survey were found to make *Drons* with the help of two machines. On one of the machines, the pressing action was to be done by hands; and on the other it had to be done by the feet. Each of these machines can cost up to Rs. 15000 and needs power to be active.

Detailed descriptions of *Dron*-work from our previous study discussing Sangeeta and Manda's work have been presented below (Gartenberg, 2011: 22):

'The task involves picking up the raw material which includes silver paper and coating paper. In the case of Sangeeta, the coating paper has some printed advertisements on the back, while Manda's coating paper is stronger and plain white in colour. They both have to buy the raw material. Sangeeta mentioned that she buys 10kgs worth of material at the rate of Rs. 465 per kg. The two kinds of paper come in large continuous sheets, which need to be marked and cut in accurate matching squares. Then, both pieces are kept on top of each other and placed under the mould bump of the machine. The lever at the bottom needs to be pushed by a foot for the mould to come down on the papers. This motion is backed by the heat generated by electricity and the two pieces are fixed together. The heat creases the edges of the *Dron* cup and it is ready. Finally, packets of 100 are made for sale. Sangeeta and her sister Jaya perform this task together, wherein one passes the square papers and the other places them under the machine and creates a *Dron*. Every 30 minutes or so, they switch places, as the one near the machine has to sand continuously. In the case of Manda however, all the sub-tasks are performed solely by her. Sangeeta gets Rs. 160 for making 1000 pieces while Manda gets Rs. 250 for making the same number of *Drons*.

Sangeeta and her sister Jaya complain of hand and wrist burns while inserting and removing the material in addition to pain through the spinal cord and legs. Manda however, has a more serious problem. She recently underwent a hysterectomy and has been asked to be away from the machine for at least six years, but due to the pressing financial situation at home, she has had to resume *Dron*-making activities within six months of her surgery. She has two daughters, one of whom is being educated at an engineering college in Nashik. Manda has glorious dreams of her daughters earning a decent livelihood and a dignified life, all built on a strong foundation of specialised education. She says, 'I will make sure my daughters do not have a shortage of any facility when it comes to education. I want them to pursue higher education so that they never have to do the kind of work I have had to do and live the kind of life I have led.' Manda also feels that if there was an option of performing an easier home based task, it would be better, as it would at least mean relief from the persistent knee pain and leg pain for a task that pays so little. Sangeeta on the other hand, wishes to continue this kind of work and wants to build direct links with employers or sellers of her goods.'

The present survey reconfirmed the occupational health-related findings. Excessive work on the hand-press *Dron* machine causes pain in the forearms, shoulders and fingers. Similarly, the foot-press *Dron* machine causes pain in the legs due to frequently pushing the lever. Hands are outstretched to keep the aluminum-foil in place and maintaining this position for hours causes pain in the arms and shoulders. The case of Manda shows that women who have surgeries such as hysterectomy, and need to be careful during the post-operative care period, do not have the luxury to do so due to the financial situation at home. Work such as making *Drons* worsens their recovery from such surgeries and can cause permanent damage to their bodies. Some workers have found this work so strenuous that they have stopped performing the task.

11. Toran-making (5)

Torans are decorative door-hangings usually made of wool. These workers also make other decorative home-items depending on the demand. They buy the raw material from the market

at their cost. All the Toran-makers we met were young women who put their artistic creativity to work as a means to earn a livelihood. All toran-makers sit cross-legged to knit the woolen decorative items and have their arms outstretched. Interestingly, none of the Toran-makers complained of any ailments, except one who said she suffers from back-pain.

12. Quilt-making (3)

Quilts mark an expression of creativity and ingenuity of home-based workers. Most quilts are made from old sarees and other pieces of garments available at home. It is therefore an exercise in recycling old and used pieces of cloth and sarees from home, and turning them into warm blankets full of beauty. There is a generosity about the way in which patterns and colour schemes are conceptualised, along with a rendering of intricate stitches. These are pieces of art not created in expensive art studios using high-end materials, but bold narratives sewn by hand in and around tiny huts of poor women. There are no exact measurements or rough sketches, no rulers, no pencils, no erasers. Fingers are used as measurement tools⁷ and pieces of cloth are laid next to each other to see how they 'look' together. It is this intuitive nature of their quilt-making which is unusual and unique, yet not recognised as 'art' either by themselves or others. As artists and workers, they remain invisible and unrecognised.

Quilt-makers usually sit on the floor either cross-legged or on leg bent at the knee while making the quilts. Continuous sitting causes pain in the back and neck. Most times, the material that they receive is old, dusty and has loosened threads, which causes respiratory problems and allergies, asthma and persistent cough.

Despite technological revolution in the modern world, most quilt-makers still rely on hand-sewing mainly because sewing machines and electricity both are expensive. The workers buy long 6-inch needles (locally called दाभाण) and thread to sew quilts out of old sarees and other garments. Pushing the needles through layers of several sarees and other garments can often prick their fingers and cause frequent cuts and swollen palms. Quilt-making is also interesting, in that, mostly senior women are found to be engaged in this work. In our study, all three respondents from Nashik were 60+, who said that it was not possible for them to do other laborious physical work which also required running around. Being senior citizens, they generally have diminished vision, which is only made worse by this work because each stitch requires focusing on the quilt at close quarters.

Despite hours of strenuous work on quilts that are masterfully crafted, they charge customers as low as Rs. 70 per quilt in 'season' period (presumably winter) and a scrawny amount of Rs. 50 per piece during off-season.

13. Cotton-wick rolling (2)

Cotton-wicks are made by hand-rolling small balls of cotton-wool. These wicks are used mainly for religious purposes at home or in places of worship.

⁷ '4 finger gap', '1 palm apart' are phrases one would hear if the quilt-makers speak about their measurement techniques

Below is the case of one of the cotton-wick-rollers in Nashik, Ratna Gaikwad

≈ **Ratna Bhusaheb Gaikwad**

Ratna buys cotton from the wholesale market in Panchvati once a month. Every day, she manages to finish performing her domestic chores by 12pm, after which she sits to make cotton-wicks. She keeps on her side two bowls, one containing ash and the other containing Sago (sabudana) powder. The Sago powder is made by adding ground Sabudana to boiling hot water and stirring this mixture. The sago powder ensures that the wicks are pointed, stiff and straight. Ratna complains that using this mixture causes irritation of the skin and eyes. She also ends up inhaling finer lint flying around from the cotton causing breathing and respiratory difficulties as well as persistent cough. Rolling thousands of wicks per day causes her fingertips to peel off, exposing them to severe burning pain especially while cooking. Since the work requires continuous sitting, Ratna also complains of pain in the back, hips, shoulders and joints.

Among all the home-based workers, we found cotton-wick-makers to be one of the lowest paid ones. They earn Rs. 10 rupees for making 1200 wicks, and therefore, each individual rolled-wick gets them Rs. 0.083 per piece. On an American e-commerce platform called Ebay, we found that a pack of 1125 rolled-wicks (~1200) cost USD 35 (~Rs. 2375). If the worker were to be paid at this rate that it is sold, she would make Rs. 2.11 per rolled-wick. The website also indicates the source of origin as 'Maharashtra, India'. It is no surprise that these workers are producing cotton-wicks for the local, national and global market at a rate as low as Rs. 0.083 per piece, while they could earn *at least* Rs. 2.11 at the present rate⁸. An Indian e-commerce website listed the price of rolled cotton-wicks at Rs. 30 and Rs. 55 per dozen, which brings the rate at Rs. 2.5 or Rs. 4.5 per cotton-wick.⁹ Hence, we see that the person responsible for the transformation of cotton-wool into ready-to-use cotton-wicks hardly gets any monetary returns on her effort, time and health.

Aside from (or in addition to) this task being low-paid, it is marked by a series of occupational hazards. Firstly, most wick-makers sit for long-hours in one position; either cross-legged or with one leg stretched and the other bent at the knee to roll the wicks. This leads to continuous pain in the back, neck, legs, knees, feet, toes, lower arms and the tips of thumb and index finger. Further, the flying lint often deposits itself in the eyes causing vision problems and also gets inhaled through the nose causing ailments of the respiratory tract.

In one case, a cotton-wick roller told us that she used to be a tailor but stopped that work because she developed a gap in her backbone. Looking at the posture of work and hours of work of cotton-wick rollers, it would seem that such an existing condition could only get worse, not better.

14. Beedi-rolling (2)

⁸ See Ebay: <http://www.ebay.com/itm/1125-Pcs-Dry-Cotton-Wicks-Diva-Diya-Vaat-Oil-Lamp-Puja-Accessories-Religious-Vat-/252021824548> Accessed on 31 Jan 2016

⁹ See Indiamart: <http://www.indiamart.com/pushprajperfumeryworks/phool-batti.html> Accessed on 31 Jan 2016

India has been one of the largest producers and consumers of Beedi; the hand-rolled thin cigarette wrapped in tendu leaves, stuffed with tobacco dust and tied at the end with coloured threads.

The Beedi-roller usually sits on the floor and stretches her legs forward, keeping a cane-supdi in her lap. The process of Beedi-rolling involves cutting Tendu leaves in a rectangular shape with a pair of scissors, laying each leaf against a piece of metal of that shape. These pieces are then gently filled in a plastic bag. After that, coarsely ground tobacco-dust is poured onto the supdi, and the plastic bag containing the rectangular leaf-pieces is kept in one of the corners of the supdi. Loose threads, each of them about an inch in size, are thrown around on the supdi as well. First, the worker picks up one of the leaf-pieces, then fills a large pinch of tobacco dust in the middle of the leaf, then rolls the leaf carefully pushing the tobacco inside and simultaneously closing either ends. The process is completed with tightly circling the thread around each rolled Beedi.

Women's sitting position with their legs stretched causes pain in the hips, thighs, the lower-back and neck. The smell of tobacco goes around in the air around the worker causing a continuous headache. Firmly pressuring each leaf during the rolling motion causes pain in the fingers, and stiffness in the thumbs.

15. Insecticide-packing (1)

'Relaxo Domeswear' is a Nashik-based manufacturer and supplier of household insecticides. Its product range includes grain-pest prevention insecticides, grain preservation tubes, cockroach control rekha chinks, cockroach control rekha powders and mosquito control coils; in addition to pain balms, cough syrups and cloth whiteners. One of the respondents to our survey, Pramila Wagh, was engaged in packaging of ampules of grain-pest prevention insecticide. She would receive the ampules, papers and boxes from the company. Her task was to wrap a piece of paper around each ampule and then carefully insert it in a box. These ampules were used as fumigation agents in grain stocks.¹⁰ The insecticides in them are so powerful that if a few drops fall on a piece of cloth, it can cause a hole in that cloth piece. This can be a highly dangerous task to perform as far as home-based work is concerned, especially in cases where the ampules received from the company are broken. Pramila said that at times when the ampule was broken, she suffered an allergy on her hands and experienced irritation in her eyes, apart from experiencing nausea and headache due to the foul odour of the insecticide. Besides, the smell of the insecticide also caused her continuous headache. In order to perform the task of packaging these insecticides, the worker would continuously sit cross-legged on the floor of her home, which caused her severe back-pain.

Pramila is also preoccupied with anxiety of not being able to earn enough for her family's sustenance. Her expenses include home rent, educational expenses of two of her three daughters and all other living expenses. Even though her husband works by way of running a soda shop, his income is not enough to support all the needs of the family. Pramila therefore

¹⁰ See Relaxo Domeswear website: <http://relaxodomeswear.com/grains.php> Accessed on 31 Jan 2016

supports the family income by engaging in this insecticide-packaging work. When this work is not available, Pramila performs other types of home-based tasks such as tailoring or packaging of snacks. At other times when there is an overload of insecticide-packaging work, her entire family jumps in to complete the work and they work late into the night. This is how the family manages to survive.

16. Soldering (1)

A diode is a semiconductor which is used in electronic goods. One of the home-based workers in our survey was engaged in soldering of diodes on integrated circuits. Nashik's Ambad, MIDC, CIDCO and Satpur area have a number of electrical and electronics companies which outsource smaller parts of the manufacturing to home-based workers in the residential areas around them.

Our respondent used the tip of a soldering machine (which looks like a pen) to fuse the diodes onto an integrated circuit. She sat on the floor, slouched towards the floor, so as to concentrate on the soldering work. She complained of back-pain due to continuous sitting. Due to the continuous soldering work without any protective gear, she experienced itching and pain in the eyes. Holding the soldering machine and working with it consistently gave her severe pain in the fingertips. She also experienced a strain in the head and stiffness of the neck. The latter is important because it denotes a gradual weakening of the neck muscles over time. Our respondent concluded by saying that her legs feel numb when she gets up after long hours of continuously working in the same position. Soldering produces fumes that could potentially be hazardous, in that, they could cause asthma and respiratory tract irritation if inhaled. It is also dangerous because soldering machines tend to get very hot and if touched without any protective gear can cause severe burns. This was one of those tasks where we found the work to be both hazardous in nature as well as detrimental to health.

17. Multiple home-based tasks (29)

We found a considerable number of respondents engaged in more than one home-based tasks, to include a series of combinations from trades such as tailoring, mess work, running a home-based flour mill (chakki or ghar ghanti), finishing work, cotton-wick rolling, cotton-wick packing, sack-making, perfume-packing, teaching cooking classes, selling bangles, sweets-making (barfi), betel-nut packing (supari-packing), *Kurkure* (snack) packing, masala-packing, chocolate-packing, pottery, Mehndi-packing and Mehndi-drawing services.

For instance, a majority of these workers perform dominant tasks such as either tailoring or fried-snacks making in the day, and in the evening they engage in packing of items such as masala, betel-nuts, chocolate, *Kurkure*, Mehndi etc. This is done simply because the income from one source of home-based work is not enough and hence, a combination of various tasks helps to make ends meet. However, this optimal use of one's labour and time also comes at a big cost. These workers suffer a combination of ailments from their non-stop work. These complaints include eye problems such as eye-pain and irritation and watering of the eyes while working. Other major health complaints are pain in the back (upper and lower), ache in the neck, chest, shoulders, joints, hands, wrists, palms, fingers, knees, calves, soles of the feet and

toes. Further, these workers also complain of peeling of skin (mainly hands and fingers), hyperacidity, ailments of the respiratory tract, asthma, dust allergy, and pelvic pain during menstrual cycles. Some have also complained of loss of hearing due to the specific nature of their work.

Here is the case of one of the respondents, Kavita Thorat, who is a home-based tailor as well as a packer of multiple items.

≈ **Kavita Sanjay Thorat**

Kavita is a tailor who makes saree blouses, affixes falls on saree rims and does hemming work. Performing this single home-based task is not enough to sustain her and her family's needs. As a result, after finishing her tailoring work all day, she performs extra tasks in the evening and night, such as fried-snacks making, chocolate-packing, and inserting insurance documents in envelopes. She earns Rs. 3 per kilogram of packed chocolates, and when the orders are on an urgent basis, she needs to be awake until 1 or 2 am to complete them. This makes a dent in her sleep-hours leaving her sleep-deprived and tired. Packing of insurance documents earns her Rs. 300 for every 6000 packets, which means each packet brings in Rs. 0.005.

Kavita's husband is also a tailor but his income is not sufficient and hence, Kavita also performs these multiple tasks. The couple has three teenage daughters, two of whom also assist Kavita in the remunerative packing-work done at home. The youngest daughter is in class 9, the middle daughter works in a pathology lab to gather money for her education in B.Sc. and the oldest daughter is studying in the second year of a diploma course. They live in a 7*8 room in Rana Pratap Chowk area of Nashik. In this tiny space where five individuals reside, some space also gets occupied by her sewing machine and the cloth and fabric materials. Kavita suffers from severe backache due to the tailoring work, but she totally ignores her pain, because she is preoccupied with her family's sustenance. She works for 13-14 hours a day, and is preoccupied with anxious thoughts of expenses to be incurred for the marriages of her three daughters.

B. Solapur

The survey in Solapur covered 500 home-based workers from 28 areas.¹¹ Broadly, their work could be divided into 26 categories (See Table 2). These include tailoring, fried-snacks making, quilt-making, Bhakri-making, towel-stitching and cleaning, notebook stitching, broom-making, packaging, sequins and beads embellishment (on garments), peanut-chutney making, home-based mess (cooked-food service), spinning cotton-yarn (on Charkha), home-based flour-mill service, Rukhwat-making, Beedi-rolling, home-based laundry services, Toran-making, home-based beauty-salon services, home-based vending (general provisions), Rakhi-making, Betel-nut cracking, making black-magic dolls, making Ganpati idols, home-based vegetable vending,

¹¹ These areas were New Paccha Peth, Madda zopadpatti, Saibaba chowk, Kunchi Kurve galli, Mallikarjun Nagar, Gawli Vasti, Mahesh Nagar, Damani Ngar, Bhavani Peth (Shelgi), Lakshmi Nagar, Kranti zopadpatti, Shriram Nagar, Maddi zopadpatti, Karnik Nagar, MIDC Solapur, Neelam Nagar, Lal zopadpatti, Bharat Ratna Indira Nagar, Shastri Nagar, Geeta Nagar, Datta Nagar, Samadhan nagar, Satya Sai nagar, Panchshell Nagar, Ekta Nagar, Madhav Nagar, 70 feet road and Ashik Chowk.

jewelry-vending and packet-making. In addition, similar to Nashik, there were those workers that performed a combination of home-based tasks to increase their incomes.

Table 2: Types of tasks performed by home-based workers in Solapur

Type of Task	No. of home-based workers
Tailoring	113
Fried-snacks making	65
Quilt-making and curtain-making	52
Bhakri-making (millet flatbread)	46
Towel-stitching and cleaning	44
Notebook stitching	28
Broom-making	22
Packing	21
Sequins and beads embellishment (on garments)	19
Groundnut-chutney making	12
Home-based Mess (cooked food service)	12
Cotton-yarn spinning (on Charkha)	11
Home-based flour-mill service	9
Rukhwat-making	9
Beedi-rolling	8
Home-based laundry	4
Toran-making	4
Home-based beauty-salons	2
Home-based vending (general provisions)	2
Rakhi-making	2
Betel-nut cracking	1
Making Black-magic dolls	1
Making Ganpati idols	1
Home-based vending (vegetables)	1
Jewelry-vending	1
Packet-making (recycling old newspapers)	1
Multiple home-based tasks at once	9

The details of each of the tasks, the process of conducting work and the respondent's ailments have been discussed below.

1. Tailoring (113)

Akin to the tailors from Nashik, in Solapur too, we found the highest number of home-based workers engaged in making saree-blouses, sewing hems on the rims of sarees and sewing like-coloured 'falls' at the base of the sarees. The steps followed in each of these processes have been discussed in detail in the earlier section. Also, the ailments of Solapur's tailors are a repeat of their counterparts in Nashik. They complain of persistent back-ache, heaviness in the neck, pain in the shoulders and joints because of long hours of sitting on the sewing machine. They also mention aches in fingers due to the precision and constant movement required of the task.

Those machines which have a motor produce a continuous beeping sound, which causes their bearers headaches. The tailors who do not have motorised sewing machines are spared of this beeping sound and its resultant headaches. However, the latter suffer from other problems, especially of the legs. The foot-pedal in these machines must be constantly activated for running the machine, which causes the feet to overwork. The flex-and-point motion of the feet also causes stiffness in the calves. Further, when the worker stands up after long hours of sitting at the sewing machine, she experiences severe pain in the knees. Some others talk of ailments such as watering of the eyes and eye-irritation due to continuous and minute focusing on needles and thread, garment and loose threads.

2. Fried-snacks making (65)

The fried-snacks makers in Solapur that we interviewed were engaged in production of Nagli (Ragi) papads. The process of making these Nagli papads in Solapur differs only minutely from the one described in the Nashik section, in that, Solapur's home-based workers skip some spices in making the Ragi batter. The rest of the process is the same. Similar to the case in Nashik, making these snacks is a seasonal affair, and home-based workers are engaged in it for half a year, and they perform other remunerative tasks in the remaining part of the year. This puts a lot of pressure on them as their working hours can stretch as long as 15-17 hours per day. Needless to say, those engaged in working for such prolonged periods on a daily basis are bound to have health problems. Fried-snacks makers of Solapur shared some of these problems during our survey. Due to bending down frequently, they tended to have severe backache. Continuous rolling of papads caused them swollen fingers, whereas the constant sitting position caused them knee-pain and hip-pain. Overall, they felt severe fatigue and weakness.

3. Quilt-making and curtain-making (52)

Quilt-makers in Solapur produce magnificent pieces of art by ingeniously recycling old sarees and used pieces of garment. It tends to be a group activity. The task involves creating layers by placing four to five old sarees of the same length on top of each other edge-to-edge. If more than one worker is performing this task together, they sit at each of the four corners and patch these layers together by hand-sewing their end of the rims. This makes a frame for the quilt. They use a simple big-needle (दाभाण) and thread to do the sewing. After this, the internal parts of the quilts are sewn, where a diversity of stitches are presented. Sometimes, the stitching work is also done on a machine, especially when the worker is alone.

Using old sarees presents a resourceful aspect of the worker's imagination. At the same time, it can be disadvantageous for her health. There can be a lot of dust deposited in the old sarees, which does not go away despite re-washing. Intense scrubbing is not an option because there is a risk that the old sarees can tear. This can cause the dust to fly around and make way into the nostrils and respiratory system thereby causing breathing problems. Hand-sewing such a large expanse of cloth requires some serious eye-hand precision, no matter how simple or complicated the stitch or pattern, causing itching in the eyes. They must sit long hours either cross-legged or with their legs stretched outward, intensely focusing on the quilt, the needle and the thread. This causes their lower-backs to continuously hurt, and their knees to strain.

They also experience a burning sensation in their palms and soles. The dust and lint causes allergies which lead to coughs and asthma. Frequent needle pricks cause pain in the fingers, and these wounds burn while they cook.

One such quilt-maker we met during the course of this study was Parvati Birajdar.

≈ **Parvati Shyamrao Birajdar**

Parvati is 65 years old and produces hand-made quilts. Her husband Shyamrao is an electrician. Their son is also an electrician and he has two children. Their daughter, who is orthopedically challenged creates decorative items out of wool. Together, the family of seven lives in the Ashok Chowk area of Solapur. Every adult in the family contributes to its income. In her work of creating beautiful quilts to support the family, Parvati suffers from persistent backache due to continuous sitting and slouching. Her fingers are often swollen due to needle pricks. She also has eye-problems. Due to the minute and precise work required by the task of quilting, Parvati suffers from frequent bouts of eye-watering. However, in describing her health problems, she also says, “रोजचे दुखणे आहे, कोण लक्ष देईल? कधी जास्ती त्रास झाला तर मेडीकल मध्ये जाऊन गोळी आणून खाते.” (“This is every day pain, who will care for it? If sometimes it starts paining too much, I go to the medical [shop] to buy a painkiller and take it.”)

4. Bhakri-making (46)

Solapur is famous for its Shenga-chutneys and Bhakris.

Bhakris are thick flatbreads usually made from millets such as Bajra and Jowar. Sometimes they are also made of corn. The millets are finely ground to make soft flour. Water and some spices are mixed in the flour. The dough is then divided into generous fist-size portions, which are then laid in the centre of a skillet and gently patted evenly into shape. Most often these skillets are made of iron, but sometimes they are also made of clay. In the absence of a stove-top, these Bhakris are made on *chulhas* (clay fireplace) where coal and firewood are used. Most of the Bhakri-makers we met in Solapur were senior citizens who experienced the common problems of oldage. In addition, their specific tasks caused additional symptoms. Firstly, sitting for long hours caused continuous backaches and knee pain. The smoke rising from the *chulha* caused irritation and watering of the eyes.

One of the Bhakri-makers interviewed during the study was Malkawwa Jungi.

≈ **Malkawwa Jungi**

Malkawwa is 67 years old and lives in a *kaccha* house in Maddi slum area of Solapur. The ventilation and illumination in her home is poor. There are seven members in her family, which include her husband, her daughter, her son and his wife and two children. Malkawwa makes millet-Bhakris of Jowar and Bajra to contribute to the family's income. The only health ailment she mentioned was backache. Upon further probing, she said, “खायला भेटते तेच नशीब, कामामुळे

त्रास झाला तरी काम करावेच लागते ना [?] मग का लक्ष द्यावा?" (“[we are] fortunate that at least we get to feed [ourselves]. Even if we suffer because of our work, we have to keep on working no? then why bother [looking after health]?”

5. Towel-stitching and cleaning (44)

Solapur has historically been famous for its textiles, which include a wide variety of items such as jacquard *chaddars*, bedsheets, bed-covers, blankets, towels, napkins, *satranjis*, and doormats. It is no surprise then, that much of the finishing work on these products gets outsourced to the homes of women in urban slums. Among these, the towel-tailors are the most commonly found. The workers buy long pieces of towel fabric made on the local textile looms and bring them home. Then, the long stretches of cloth are cut across perforations (if they are already made by the machine). If the cloth does not have perforation marks, the workers cut the cloth in different size-dimensions such as 30x60cms, 14x14cms, 27*54cms or 18x14cms. Each of these pieces are then stacked in piles. The rims are folded and a sewing machine is used to sew all four borders of the towel. The last step in the process is ‘cleaning’ which refers to snipping of loose threads off each piece of the towel.

6. Notebook stitching (28)

These are home-based workers that engage in stitching of notebooks. They are provided bundles of lined-papers by the employers and their job is to stitch smaller bundles together, which then form the writing part of the notebook. This stitching is done with a log needle (दाभण) and strong nylon threads. The cardboard covers on the front and back of the notebook that bind them are added by a different set of workers called ‘binders’. The notebook makers complain of swelling in the fingers due to frequent needle pricks. In addition, the movement created for stitching causes pain in the wrists. As is the case with other workers, they also suffer from backache due to continuous sitting.

7. Broom-making (22)

Broom makers of Solapur mostly belong to a community called the Kunchikurwes, and originate mainly from areas in and around Solapur, while their migration chain originates in Tamil Nadu and goes from Andhra Pradesh to Karnataka to Maharashtra. Historically, they were the makers of ‘*Kunchi*’ or ‘brushes made of grass’, which were used for starching sarees. This traditional skill continues to live on among the members of this community, which is used for making brooms of different kinds. The Kunchikurwes are also referred to as *Makadwale* (The monkey-people), because they were also engaged in conducting street-shows with monkeys.

Solapur has quite a large number of Kunchikurwes, and a significant proportion of their population is engaged in broom-making. Our previous report (Gartenberg, 2011: 31) narrates the story of two broom-makers, Tukubai and Akawwa, which is quoted here:

“Two women, Tukubai Kunchikurve (60) and Akawwa Kadaar (65), sit outside their homes in an open area making small whisk-brooms... Also called *shirayis* in some parts of Maharashtra,

these brooms are made from reed-like dried grass. Either they get the dried grass from the jungles themselves, or buy it from farmers in the nearby rural areas at the rate of Rs.25 per bundle. The process begins with the clearing the grass bundles. The basic cleaning of rotten parts is followed by fine-combing or 'polishing' to remove any uneven layers. A special handmade tool is used for polishing. This tool is a piece of wood, mounted with approximately 25 nails with the pointed side upward, atop a taut velcro. This is a customised [tool made on] order by the local cobbler specifically for this job. It costs Rs.150. After cleaning and polishing, the grass is cut with a heavy iron knife. Then they neatly lay one streak on top of the other, the base of the broom is tied individually with the use of an iron stick in the ground. Each whisk-broom is sold by these women at Rs.3. They carry these brooms on their heads and go shop-to-shop to sell them. On a good day, they end up selling 20-25 pieces. The trade requires constant sitting, which stiffens their lower-back and creates tension in the shoulder area. Further, thorns pierce through their hands and arms while cleaning the grass. Their fingertips and palms have rashes and blisters most part of the year, which are only aggravated while performing additional domestic chores. After the brooms are ready, they carry them on their heads in the hot sun, walking several miles in order to sell most of their items, if not all."

The second round of our survey after 4 years of the above case, did not show any significant changes in their lives. Broom-makers still complain of cuts in their fingers while handling and clearing the raw material, making a specific addition of allergies caused due to inhaling the finer grass particles and dust. They also suffered from burning sensations in their fingers and hands during cooking.

Another case of broom-makers was that of two sisters, Surekha and Shanta Veerappa.

Surekha Veerappa, Shanta Veerappa

Surekha,35 and Shanta,34 are sisters. Together, they live in the Kunchikurve galli of Solapur near Ashok chowk. For the past eight years, the rest of their family moved to Mumbai. They make brooms and feed themselves. Shanta has a mental illness and Surekha takes care of her. Both of them are unmarried. Surekha did not get married because if she had, there would be no one to take care of her sister.

Surekha and Shanta work 7-8 hours a day making brooms. This is their only means of survival. Surekha is the main breadwinner while Shanta helps her sometimes depending on her health. Surekha often ignores her own health complaints to the extent that she does not even acknowledge her problems. Upon probing, she gradually revealed that her palms are almost always swollen due to knife-cuts, while prepping the grass for the brooms. The dust from the brooms caused her eyes to be blood-shot all the time. She experiences persistent itching on the skin all over her body. She ignores all these symptoms while gearing up to the daily struggles of her life.

8. Packing (21)

Packing tasks involve dealing with a wide variety of items. We found in Solapur that some workers were engaged in filling matchsticks in matchboxes, while others were packing food items, and yet others in packing betel-nuts. We also found several workers filling boxes or plastic bags with items such as clothes, *rangoli* powder, fried snacks and other food items. They all complained of severe backache due to continuous sitting demanded by the job.

9. Sequins and beads embellishment on garments (19)

Yet another task associated with sewing skills of women, sequins and beads embellishment on embroidered cloth is one of the most commonly found home-based trades in urban slums in India. In Solapur, we found that women either bought sarees from a shop or were provided sarees by an employer, on which they sewed beautiful design patterns. In both cases, they looked up embroidery books to determine which design to embroider or embellish. Once they have picked a design, they embroidered it on the cloth. After that, they embellished the pre-embroidered saree with sequins and/or beads.

This work is strenuous and requires eye-hand precision. The eyes obviously take a hit in the process, causing itching and watering of the eyes. The long hours of continuous sitting and slouching also causes backache, whereas the folding of one of the legs for comfort often causes knee-pain. Getting up after long hours of sitting also causes dizziness. The incredible amount of minute work done with needle and thread causes swelling in the fingers due to needle pricks. These pricks also act up when the woman starts cooking, leading to a burning sensation in the fingers and palms.

10. Groundnut-chutney making (12)

Shengachatni-bhakri is a popular dish in the Solapur region. Shengachatni is a mixture of powdered groundnut, cumin seeds, garlic, sesame and chilli powder. Bhakri is a thick Indian bread made of different kinds of millets such as jowar or bajra or ragi (see section on Bhakri-making above). Shengachatni is usually served as an accompaniment with a Bhakri. Those making this Shenga-chutney buy the groundnuts at Rs. 60 per kilogram. The groundnuts are roasted as this process eases the removal of its outer covering. The sesame is roasted too. These two ingredients are then mixed with garlic, salt, cumin seeds and chili powder. This mixture is then pounded in a heavy mortar-and-pestle made of stone. Finely ground and ready, they are then packed in small plastic bags which guarantee a long shelf-life. The plastic bags are then sealed with the help of a candle.

Workers engaged in making this chutney complained of severe lower back-ache due to the frequent bending required for this work. They also complained of pain in the neck and shoulders. They mentioned that the motion of pounding the ingredients caused their fingers to hurt. Spices would enter their eyes all the time through this process, which would lead to burning of the eyes.

11. Home-based Mess (cooked-food) service (12)

As is the case in Nashik, the mess-workers in Solapur too provided cooked meals to patrons for a monthly fee. Similar to their Nashik counterparts, the mess-workers would buy vegetables from the market, wash them and clean them, after which they spent a few hours to chop them. Once all the ingredients were cleaned, chopped and ready, they would then move to the next step of cooking these ingredients to make a main dish accompanied by chapatis and rice. The work was hectic and required daily effort, unlike other seasonal home-based tasks. It has been found that several senior citizens were engaged in this home-based trade. Severe pain in the entire back, neck, shoulders, and legs were found to be the most common symptoms experienced by mess-workers as they took on several positions during the course of all their work. If the ventilation in the house was poor, they experienced suffocation while cooking, especially so when the smoke arose while sautéing spices. Chopping of vegetables was the most tedious task, requiring also the maximum amount of time and continuous sitting. It also caused problems such as pain in the fingers and the eyes. Their full hands would ache, and there was a burning sensation in their eyes and palms. Some workers said this burning sensation in the palms was so intense, that often they would find it difficult to catch sound sleep in the night.

12. Cotton-yarn spinning (on Charkha) (11)

In an Indian's mind, spinning of cotton-yarn brings images of nationalistic fervor, harking back to Gandhi's call for self-reliance. It would almost seem as if spinning cotton yarn on a *charkha* is an emancipating exercise symbolising independence and liberation. Far from it, spinning cotton-yarn on a charkha in independent India is an activity conducted by very poor home-based workers for a pittance. The activity is badly-paid requiring back-breaking work, symbolic only of deprivation and exploitation. The nature of the work itself and the working conditions are nothing short of a punishment.

Cotton-yarn spinners of Solapur make thread from cotton-yarn and load them on spools, which are then used by the powerlooms for making all kinds of textile items such as towels, napkins, bedsheets, jacquard *chaddars* etc. The process of making this thread begins with the workers buying long, continuous interlocked cotton-yarns and spinning them on the charkha and bundling them neatly on spools. These spools are quintessential for the powerlooms on which these spools are loaded, after being dyed in various colours. Much of the historic acclaim for Solapur's textiles would not be possible without home-based workers like Drakshini Jaladi (see box below), whose hands contribute to the brilliance of its famous textile industry. Women operating in informal employment play a significant role in creating the requisite environment for harbouring such growth, but do not find any recognition for their hard labour. Instead what they get are poor sums for their intense manual work, resulting in an array of health problems. These include— but are not limited to— aches in the shoulders due to the rolling motion while spinning the charkha, severe backache due to continuous sitting in one position, pain in the knees if one of the legs is bent during work. In addition, if the thread is sharp, they are susceptible to frequent cuts in fingers and palms while fixing the thread on the charkha. They also experience a burning sensation in their hands and fingers while cooking and performing other domestic chores.

Below is the case of Kamala Kasture, a home-based cotton-yarn spinner in Solapur.

Kamala Kasture is 70 years old. She lives in Maddi slum of Solapur. The length of her life has been characterised by hard-work in all kinds of informal sector jobs. She has been a domestic worker, a mess-service provider, a fried-snacks maker, a home-based tailor and now, she is a cotton-yarn spinner. She thinks that spinning a *charkha* is the easiest of all tasks that she has done in her life, and therefore one often finds Kamala spinning the charkha in her tiny hut straightening thread from yarn to load on spools. All other work, she says, requires much higher physical strength compared to spinning cotton-yarn which requires— among other things— sitting on the floor and turning the *charkha* wheel with one hand. She suffers from backache, poor visibility and shoulder pain.

13. Home-based flour-mill service (9)

We found that some home-based workers in Solapur owned flour-mills, which cost in the range of Rs. 10000-20000. Their customers gave them various wholegrains and millets to grind, such as wheat, bajra, jowar, chickpeas etc. These grains were loaded in small batches into the upper part of the mill, and simply pressing one button on the machine would transform them into flour. Further, some clients also gave spices for grinding. The workers complained of pain in the shoulders while lifting and pouring of heavy volumes of the grain from buckets to the machine. Their work entailed looking over the grinding process and to control it, which meant continuous standing which caused pain in the knees and legs. The dust and husks of the grains would often cause allergies, persistent cough due to its inhalation, irritation in the eyes and itching due to dust allergies. A majority of them complained of respiratory issues such as asthma and bronchitis. When they would grind spices, often they experienced burning in the eyes. Covering their nose and mouth with handkerchief helped a little, but also caused them to feel suffocated and short of breath. Suffocation due to handkerchief tied on face while grinding, itching of skin due to dust.

Parvati Swami is one of the home-based workers w interviewed who provided home-based flour-mill services for her clients.

≈ Parvati Swami

Parvati, 70, lives with her husband in Saibaba chowk in Solapur. She provides home-based flour-mill services. Most of the time, she finely grinds chilies, turmeric and other whole spices on her home-flour-mill. Entering her work area within the home means that an individual will inhale the finer particles of spices such as chili and start coughing and sneezing. For Parvati, who does this work most part of the day, persistent respiratory irritation is a part of her life. Her doctor has advised her to stop doing this work, but she has no other option because she supplements her husband's income who runs a small general provisions store.

14. Rukhwat making (9)

In our previous mapping exercise, we had given details of the Rukhwat-making process (Gartenberg, 2011: 30), which is quoted below:

Rukhwat, a specialty of Maharashtrian and Kannadiga weddings, involves a display of a series of items, which are traditionally meant to be a bride's trousseau. These may include clothes, food items, accessories and decorative display items. One special *rukhwat* item is called *Nakolya or Pardi or Botve*. These are food items made with a mixture of semolina and white flour. The laborious process of making these items involves pressing each piece of dough individually and rolling it into tiny shapes one-by-one. These shapes include spiral, flat circle, shell, rose, deer-antler, semi-circle, dots and *katori*. One of the palms is used for laying the tiny balls of dough and the other palm and fingers are used for pressing or rolling it, depending on the design order. Basic tools such as comb-teeth, matchstick-heads, shells are used to help with the design of each piece. Once the shapes are rolled out, they are left for drying in the sun, after which they are packed in different quantities (250gm, 500gm, 1kg). Sridevi Hanugunde, 35, a mother of six children is involved in making these items along with all the women in her family, which include two sisters-in-law and mother-in-law. They charge Rs. 100 per kilogram of these items. Making one kilogram can take up to 20 hours.

The Rukhwat-makers interviewed for the present study complained of continuous backache due to continuous sitting, and persistent pain in the legs and fingers.

15. Beedi-rolling (8)

Beedi-rolling has been one of the oldest tasks performed by women in Solapur and some other parts of India. The process of Beedi-rolling in Solapur is the same as the one found in Nashik. The tendu leaves are bought and soaked in water for some time, then cleaned and cut into tiny rectangles using a stencil. Coarsely crushed tobacco dust is then gently rolled into the leaves, which makes a slim cigarette. The ends are tied with the help of loose threads. Beedi-rollers in Solapur suffer from respiration issues and persistent coughs due to inhaling of tobacco affecting their lungs and their breathing process. Due to sitting on the floor for a long time, they also complain of backache and knee pain. Most importantly, the inhaling and smelling of large quantities of tobacco dust also causes a kind of intoxication which can be mind-numbing. Several respondents told us that their doctors had repeatedly advised them to stop this work. However, their condition of financial distress makes them continue this difficult and poorly paid task.

One example of this difficult life is the story of Anjana Bonyal of Solapur.

≈ Anjana Bonyal

Anjana is a 36 year-old Beedi-worker who lives in MIDC (industrial) area of Solapur, with her two children. Her husband passed away few years ago and she is now the sole breadwinner of the family. Three years ago, she was diagnosed with breast cancer, and doctors were of the firm belief that her work in the tobacco industry was responsible for the cancer. With her mealy income from Beedi-rolling, spending money for operations, treatments and medicines was impossible for her. Feeling hopeless and lonely, she approached the LMKS union of which she was a member. The union helped her to get connected to the foundation of Barshi cancer

hospital, where all treatments are free of cost. However, knowing fully well that she had no money for food or medicines, she refused to get admitted in this hospital. She was overcome with worry also about her children's needs. At last, after repeated convincing attempts by LMKS activists, she decided to get admitted in the government hospital in Solapur and the union activists took turns in caring for her over two months while she was there. In this period, they also managed to push Siddhivinayak trust for financial help in her surgery. She got treated and came back home. Upon her return, she resumed her previous work of rolling Beedis, because there was no other alternative for earning a livelihood. Through the course of this survey, Anjana told us that she had just returned from the hospital with her CT scan reports and medicines. She again felt pain in her chest and once again the doctors advised her not to go back to Beedi-rolling. But she said that that was the only means of survival available to her, without which her children would starve and sleep on empty stomachs. The doctors have advised her to continue her medication for the next five years. She is continuing her work as a Beedi-roller and also actively looking for some other part-time job to meet the expenses of her family.

16. Home-based laundry service (4)

Like their counterparts in Nashik, the laundry-workers in Solapur provide washing and ironing services. The clothes are soaked in soapy water made with detergent, then individually scrubbed with a brush, run through clean water, squeezed to drain out excess water and then affixed on a clothesline for sun-drying. Once dried, these clothes are ironed and neatly packed in large pieces of cloth. Invariably, almost all laundry workers use coal irons because electric irons are expensive and they like to save on electricity as well. The laundry workers suffer from persistent backache and joint-pains due to the various positions taken during washing large bundles of clothes. They also experience shoulder pain, especially during the ironing process because their arms are out-stretched for long durations. Ironing also causes other problems such as wrist pain and neck-strains due to lifting of heavy coal irons, as well as leg-pain due to continuous standing.

17. Toran-making (4)

Home-based workers that are engaged in hand-knitting make several items such as sweaters, caps and decorative items such as door-hangings and wall-hangings. The materials required are woolen yarns and knitting needles. Most Toran-workers interviewed in Solapur complained of persistent backache due to long-hours of sitting, as well as watering of the eyes due to the eye-hand coordination required to perform this task. Some of them also experienced a burning sensation in their fingers due to the motion of hand-knitting and occasional needle-pricks.

18. Home-based beauty salons (2)

These include beauty parlor workers, who perform facial, shaping hair and other look enhancing treatments. Leg, knee pain (due to continuous standing while performing work),

shoulder pain (due to continuous stretching of arms), eyes pain (due to continuous focus), palm skin peeling (due to applying various beauty creams with hands)

Home-based workers beauticians in Solapur provided treatments and services for their clients' hair and skin. As in Nashik, these included hair-work such as cutting, styling and colouring, face treatments such as facials, cleansing, massaging and bleaching, and other clean-up tasks such as threading of facial hair and eyebrows. The complaints of these workers could well be a repeat of their counterparts in Nashik. They said that due to the excessive use of their hands, fingers and finger-tips, they suffered from persistent pain in their full hands. They also required long hours of standing which caused aches in their limbs. They experienced irritation and pain in the eyes due to continuously focusing on the treatments over the clients' skin or hair. They also said that the excessive use of chemicals for such treatments caused their skin to absorb these substances and result in the peeling of the skin.

19. Home-based vending of general provisions (2)

Two of the respondents in Solapur sold general provisions in their homes. These included items such as groceries, washing and cleaning powders, packaged fried snacks, some stationary items etc. Interestingly, neither of these workers had any health complaints.

20. Rakhi-making (2)

We met two *Rakhi*-makers in Solapur during the course of this study. The process of *Rakhi* making involves affixing sequins and beads in a pattern on the decorative coin-size base made of cardboard. After this step, the workers attached satin threads on either ends of the diameter of each *Rakhi*, which completes one piece. *Rakhi*-makers in Solapur complained of watering of the eyes while performing their tasks.

21. Betel-nut cracking (1)

Supari, also known as betelnut or Areca-nut, is a dried drupe widely consumed in India for centuries. It is considered to be a mild stimulant and is often consumed with *paan*. In its natural dried form, it gains a wood-like texture. In order for it to be consumed, it must be pounded using special hammers or cut with special scissors called as 'Adakitta' in Marathi. The single worker engaged in this task we met during this survey was pounding the betelnut using a heavy pestle called 'Musal'. She complained of pain in the joints and shoulders due to the hammering motion which required lifting and pounding of the pestle. The task also required continuous sitting which caused severe backache.

22. Making black-magic dolls (1)

In our previous mapping exercise, we had laid out in great detail the interesting process of making black-magic dolls in Solapur. Below is a description taken from that report (Gartenberg, 2011: 32):

"Who would have thought that the discarded pieces of tyre tubes and rickshaw seat-covers could be used once they were thrown away by a garage? Nirmala Sutar, 60, talks of her

neighbour Sharada Jhaveri, 50, who scouts such material from a garbage dump near a garage. Most times, she gets lucky, but at other times, she asks the wastepickers in the area to provide her with these materials, provided they are all black in colour. She pays the wastepickers Rs. 25 to bring her the black rubber or foam material. Further, she buys discarded shreds and strips of cloth material from local tailors at the rate of Rs. 4 per kg. Sharada cuts small and big pieces of the black rubber based on a mould designed to make black-magic doll. Once the cutting is completed, Sharada sends the cut-outs and the cloth shreds over to Nirmala who does the stitching by hand. Nirmala starts stitching from the bottom and as she makes her way up, she keeps filling the doll with cloth strips, before finally sewing all ends... She is paid Rs.2 for stitching the smallest piece, Rs. 10 for stitching a medium size piece and Rs.20 for sewing a large piece. Once the pieces are completely sewn, they go back to Sharada for painting the face of the doll. It is not known how much the selling price of these pieces, but this is a great example of recycling of waste by home-based workers and its re-use in creative ways.”

In the course of this study as well, the same process of making dolls was seen, except for the addition of one more step. It was found that the worker was also engaged in colouring the leather, after which they resume the painting of the face. These workers complained of persistent backache due to continuous sitting.

23. Making Ganpati idols (1)

One of the respondents used a special kind of clay to make idols of the Indian elephant-headed god of prosperity, Ganpati. She had no health complaints.

24. Home-based vending of vegetables (1)

Like in Nashik, we also found women selling vegetables from their homes. The only difference was that while the ones in Nashik complained of several health issues, the home-based vegetable vendors in Solapur said that they did not suffer from any issues related to health.

25. Jewelry-vending (1)

Similar to the case of home-based vegetable vendors mentioned above, the home-based sellers of “Bentex” jewelry also did not mention any ailments or health complaints.

26. Packet-making (recycling old newspapers) (1)

One of the workers in Solapur was engaged in making rectangular packets from recycling of old newspapers. To do so, she cut the newspaper with the help of a pair of scissors to create even-sized rectangles. Then, she made the necessary folds at the ends of each of these rectangles to make a packet and then used glue to paste these folded ends. She complained of peeling of the skin of her hands due to the continuous use of glue.

27. Multiple home-based tasks at once (9)

Despite their relentless hard-work, home-based workers in Solapur face financial distress crippling enough to push them into multiple home-based tasks at once. Like their counterparts

in Nashik, these workers perform one primary home-based remunerative task at home in the day and then in the evening, after they have finished performing domestic chores of cooking and cleaning, they sit to perform other home-based tasks. Some of the combinations we encountered were tailoring and fried-snacks making, Bhakri-making and towel stitching, fried-snacks making and curd-making, fried snacks making and Beedi-rolling, tailoring and notebook-stitching, home-based mess service and towel-cleaning, vegetable vending and curd making. We have also found that the incidence of workers performing combinations of home-based work in a day tend to be single-women-headed households. As such, their working hours (for remunerative work) can go up to 10 hours each day, in addition to 4-5 hours required for performing domestic chores. A life characterised by such hard-work is almost unimaginable. Yet, this is the reality for tens of thousands of home-based workers. They suffer from a combination of symptoms, most common of which is backache due to long hours of continuous work in one position. They also suffer from fatigue and weakness due to the heavy work-load, frequent headaches due to long working hours and insufficient sleep. Besides the physiological ailments and appallingly low incomes, it is worth mentioning that shouldering so many responsibilities when every day is a struggle for survival has bearing also on the psychological well-being of a person.

Concluding Remarks

This study has brought to light the range of home-based tasks performed by women in Nashik and Solapur. More importantly, it has shown the current health status of these workers. The clear message from each of the cases and descriptions is that home-based work is causing some serious occupational health problems while the earnings continue to be abysmally low. The plight of these women home-based workers who sell their labour and their art can never fully be comprehended, but our involvement with them indicates that it gets compounded as most workers continue to ignore their health problems in order to save money and make it available for handling other expenses at home.

Some of the main reflections from this study are:

1. Some health ailments were found to be common to all home-based workers, primarily due to long hours of maintaining one position and posture, such as sitting cross-legged, standing, intensive finger-work and persistent eye-hand coordination. These problems include continuous pain in the lower-back and lumbar region, hyperacidity and stomach-pain, pain in the limbs and arms, aches in hands and fingers. Some of the tasks such as vegetable vending and fried-snacks making which involves lifting of heavy weights can expose them to the risk of hernia. Being in one position for a very long time restricts blood-flow to certain parts of the body causing numbness and a 'pins and needles' sensation. Further, because most of these activities are done at home, the frequent disturbances and domestic chores break the concentration and cause irritation.

2. The largest majority of workers in this study are found to be tailors in both Nashik (265) and Solapur (113). A large number of the remaining respondents that are not directly stitching clothes are engaged in some or another activity that requires sewing, such as quilting, towel-stitching, notebook-stitching, sequins and beads embellishment etc. This is therefore one skill which will certainly always find some use. This is not a coincidence. Tailoring appears to be a socially approved income-earning activity for women, which can be performed from the confines of the home. Even though patriarchal society's restrictions prohibit women from freely moving around, the shrinking incomes of single breadwinners pushes the women to enter the workforce and work for lengthy hours. As a remunerative activity, tailoring combines the exploitation of home-based workers as women and as workers. Evidently, the entire physical body of a tailor suffers from persistent full-body ache, and the lack of movement due to long hours of sitting causes other internal problems such as bowel disorders. Over a period of time, the continuous harboring of such ailments makes them chronic and causes irreversible damage.

3. The case of Nashik's *Dron-maker* Manda shows that women who have undergone procedures of hysterectomy, and need to be careful during the post-operative period, do not have the luxury to do so due to the financial situation at home. Investment is involved in buying machines to make these *Drons* and women feel the double-pressure to keep the work going instead of keeping the machine idle. Due to the ankle-pressing motion required for the machine, the activity of *Dron* making worsens their recovery from such surgeries and can cause permanent damage to their bodies.

4. Lack of sleep is a serious problem of all home-based workers, which builds up over time to create large sleep deficits. This is a serious concern because having a sleep deficit expedites ageing and can cause depressive feelings. Some studies in health sciences also indicate that over a period, lack of sleep can also cause premature death. In addition to this erosion of their bodies, the lack of sleep also causes hyperacidity, low immunity and a foggy memory; increasing the risk of accidents due to poor concentration. Our study has shown that in the 'season' for fried snacks, workers go on for as long as 20 hours a day, due to the heavy demand for their products. It is no wonder then; that their bodies do not get a chance to repair or rejuvenate in the frantic 'season' period, causing a toxin-buildup enough to make them seriously ill. It is important to therefore bring into active discussion the concept of the '**Right to Sleep.**' By this, we not only refer to the right to adequate and restful sleep, but also to the right conditions for it to happen, such as violence-free family and community situation, freedom from the anxiety of eviction from slum-housing.

5. We recommend that in addition to interventions from general physicians, there need to be sessions with at least three specialists for the problems mentioned by the respondents in this study, namely: orthopedists, ophthalmologists and physiotherapists.

After looking at the cases of 1018 home-based workers in Nashik and Solapur, it would not be wrong to state that the riches of the world are built, quite literally, on the bony, sickly and malnourished bodies of the urban poor women workers. The price of goods such as cotton-

wicks in the international market elucidates this assertion. Given this situation, it is the responsibility of various actors such as trade unionists, government, civil society and the medical fraternity to join hands to appreciate the contributions made by home-based workers and create a space for “healthy discourse” on reversing the trend of their deteriorating health, conceptualise schemes that can assist preventive care and affordable treatment, along with financial assistance for the host of ailments suffered by them because of their work. This is the only way in which home-based workers will find an enabling environment for asserting their right to good health, reclaiming their dignity and ensuring their overall development.

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Annexure 1

Questionnaire: OSH survey for home based workers

A. Details of the worker and work

1. Name, Age, Marital Status
2. Kind of work + description
3. Position while working: Standing- hands stretched/ Standing- hands stretched up/ Sitting on Chair or stool/ Sitting on the floor- cross legged/ Sitting on the floor- legs stretched
4. Hours of work
5. Main problems
6. Does dust from your work affect your health
7. Does lint from your work affect your health
8. Does the noise from your work equipment affect your hearing?

B. Specific information on health problems (description important)- Below is an interview-guide

9. Headache:
10. Back pain:
11. Neck pain:
12. Chest pain:
13. Arms/ shoulders/ hands:
14. Fingers/ palms/ fingertips:
15. Eye strain:
16. Lower back, waist and hips:
17. Stomach problems (hyperacidity/ gastrointestinal ailments/ constipation/ loose motions):
18. Does this work affect your menstrual cycle? How?
19. Have you been doing this work through your pregnancy?
20. History of BP, Diabetes:

C. Social security

21. Have you registered for any govt. or private policy for healthcare?
22. Have you availed of any medical benefits for yourself?
23. Are you registered in the Rajeev Gandhi Jeevandayee Arogya Yojana (RGJAY)?
24. Have you availed of any medical benefits through RGJAY?

D. Hazards checklist- researcher's observations

- Is the work-area a separate room at home
- Is there sufficient space to work (at least 40 sq/ft)
- Is there adequate lighting/ illumination
- Is the work-area adequately ventilated to enable supply and circulation of fresh-air?
- Is the noise from your work equipment have an impact on hearing
- Is there adequate storage
- Is there a need of fire extinguisher for the specific task, if yes is it there at the workplace
- Is first aid available at home/workplace
- Look out for: linkages in caste and occupation, religion and occupation, age and ailments)