

**Occupational Health for Home Based Women Workers
in the Informal Economy:
Protecting our Health and our Work**

**Project Supported by
Department of Science and Technology (DST)
New Delhi**

**Project Period
September 2010 to March 2012**

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Project:

Occupational Health for home based women workers in the Informal Economy:
Protecting our Health and our Work

Project Objective:

To develop appropriate prototypes and provide preventive health education for addressing the occupational risks of home based women workers, specifically kite workers and readymade garment workers, of the informal economy.

Project Background:

94 percent of the women workers in the country are engaged in the informal economy. These women are self-employed, work long hours and earn very low incomes. Due to the very nature of their work and long working hours, they are prone to occupational health hazards. There is minimal awareness of occupational health risks and hazards amongst this working group. Unlike workers in the formal sector, the informal worker groups have no statutory social protection.

The women workers entirely depend on their work for survival, and are caught in the vicious cycle of poverty and ill health. Poor health leads to loss of work resulting in low incomes. Our experience of organizing women workers of the informal economy has shown that they work in difficult conditions for long hours and suffer from a wide range of occupational health problems. Addressing occupational health and safety is extremely important, as health is an important determinant of work, income security and social security. However occupational health remains a neglected aspect in both the public and private health care systems.

Self-Employed Women's Association (SEWA), a national trade union of 1.3 million women workers of the informal economy, was registered in 1972. Lok Swasthya SEWA Trust (LSST), a sister organization of SEWA, has been implementing a range of women-led and child health interventions in Gujarat for the women workers and

their families, for over twenty-five years. LSST has been implementing preventive, promotive and curative health services, through a cadre of grassroot-level women health workers. They provide basic health information, primary health care services and referrals to higher levels of care. In order to increase access, the health workers take health care to the women workers' doorsteps.

LSST, with support from the National Institute of Occupational Health (NIOH) and the National Institute of Design (NID), have in the past studied various trade groups engaged in the informal economy and have designed and developed tools (prototypes) for some of the groups (for example, incense stick rollers, hand-cart pullers etc). LSST with support from the Department of Science and Technology (DST), through this project, has worked towards addressing the occupational health issues of two women worker groups – kite workers and ready-made garment workers.

Project Activities:

In order to address the occupational health issues of the two groups - kite workers and ready-made garment workers, this project essentially focused on developing prototypes and providing preventive health education in collaboration with organizations like NID and NIOH. While developing appropriate prototypes and health education was the primary focus, referral linkages with public health services were also made.

The 6 main activities of the project were:

- (I) Needs assessment with NID (National Institute of Design, Ahmedabad) for kite workers and ready-made garment workers
- (II) Designing prototypes for the two target groups, with NID
- (III) Field testing of prototypes with NID
- (IV) Making the prototypes available to the women workers
- (V) Training health educators on occupational health issues, prevention and safety measures
- (VI) Preventive health education through the communication tools developed and creating referral linkages through the medical camps

(I) Needs Assessment:

(a) A preliminary assessment was conducted by LSST for collecting as much information possible on the health and safety risks faced by the two trade groups, due to their occupation and place of work.

(i) KITE WORKERS: Ahmedabad city (Gujarat) – The preliminary assessment was conducted in 2 areas in Ahmedabad city with 70 kite workers (40 kite workers from Allahnagar and 30 kite workers from Jamalpur), through group discussions and individual meetings. Kite workers make either paper kites or plastic kites. As most of our members are involved in making plastic kites, we focused on assessing the women workers making plastic kites. Making a single kite is a combined effort of 4 different kite workers. The work is divided such that one kite worker only cuts the plastic sheets required, the second kite worker will paste only the wooden stick at the center vertically, the third kite worker will place the bent wooden stick as an arc to give it adequate support and the fourth kite worker pastes the small piece of plastic sheet at the end of the wooden stick, which also gives the kite its characteristic tail. For all of these workers their home is also their work place. They work for nearly 7 to 8 hours in a day (some the entire day). Their work requires them to be in the sitting position (prefer to sit on the floor) slightly bent forwards. They currently use a small table which is of very low height. They have paid 30 rupees for the table. On an average each of these workers make 1000 pieces daily. They earn on an average 50 rupees per day (with variations in the peak season of kite making which is December and January).

Occupational health problems of kite workers: shoulder, neck, back & knee pain

Expressed needs: Slightly increase the height of the table so that they don't have to bend as much as they do now. Also, if the table could be made a little wider they can stretch their legs through it. They are willing to pay 100 rupees for the equipment (prototype) that will be beneficial to them both at work and have a positive impact on their health.

(ii) READY-MADE GARMENT WORKERS - Ahmedabad city and Surat city (Gujarat) Preliminary assessment was conducted in 2 areas in Ahmedabad city with 50 ready-made garment workers(25 readymade garment workers each from Saraspur and Sundaramnagar in Ahmedabad city), through group discussions and individual meetings. They are mainly involved in stitching salwar kameez, blouses, long skirts and shirts. They get the cut pieces of the cloth from the local contractor. Most had their own sewing machines at home. Those who could not afford a sewing machine worked as a ready-made garment worker at small factories near their homes. They work for nearly 7 to 8 hours in a day (some the entire day). Their work requires them to be in the sitting position slightly bent forwards. They sit on a stool and hence have no back rest. Some of them had machine powered sewing machines while others didn't. They have paid around 8000 to 10000 rupees for the sewing machine and 100 to 150 rupees for the stool. On an average each of these workers makes 100 to 125 rupees daily (with variations in the festival periods and school - reopening times).

In Surat city, the ready-made garment workers in Limbayatnagar are mainly engaged in pulling off the loose embroidered threads from sarees. This they would either do by keeping the sarees on their laps or by hanging the saree to a thread on the wall. It resulted in back pain and finger and joint pain.

Occupational health problems of ready-made garment workers: shoulder, back and knee pain, swelling in the feet, numbness in the feet and reducing eye sight.

Expressed needs: They would prefer a chair with appropriate back rest so that they can sit properly while working and lean backwards when they would like to take rest, which is usually a few minutes in between their work. They are willing to pay 50 rupees for the equipment (prototype) that will be beneficial to them both at work and have a positive impact on their health.

(b) Needs Assessment by NID (National Institute of Design)-Mr. Shambit of NID, Ahmedabad conducted needs assessment of the kite workers and readymade garment workers in Ahmedabad city (September 2010 to March 2011). The process involved conducting group meetings with the workers, visiting individual workers at

their work place (which is their homes) and observing the worker and the surroundings while she is working. The main findings of the needs assessment were:

- i. For kite workers: due to the long working hours and bent positions they had shoulder, neck, back and knee pain.
- ii. For readymade garment workers: due to the long working hours and bent positions they had back and knee pain, swelling in the feet, numbness in the feet and eye sight problems.

The needs assessment report for kite workers and readymade garment workers by NID is attached as *Annex 1* along with this report.

(II) Designing prototype's with NID:

The methodology for designing and developing prototypes included the following stages –

- a) Study and analysis of the target groups' work place, existing products and systems, materials used and work station ergonomics
- b) Collation of information from the interactions and observations
- c) Assessment of problems and need definition
- d) Design and development of prototypes involved developing products to match with the target groups' needs and ergonomics. The process included developing design concepts and ideas, construction of prototype models, evaluation of concepts, detailing of materials and product specifications, prototype testing and finalization. Attached as *Annex 2* is the process followed by NID for designing and developing the prototypes.

(III) Field testing of prototypes with NID:

This involved (i) Field testing of the developed prototypes with the women workers groups and (ii) Review, redesigning, retesting and finalization of the prototypes.

KITE WORKERS

It was decided that a work table as per the needs of the kite workers will be developed as a prototype for this group. The first prototype was developed by May 2011 and pilot tested with 10 kite workers in June 2011. The women workers found that the height and slope of the table was unsuitable. The kites were slipping off from

the table. Based on the feedback provided by the women workers, NID developed a second prototype by October 2011 with improvisations on the table. The second prototype was field tested for 8 days in November 2011. The women workers still did not find it satisfactory. The weight issue remained and the table was a bit inclined which reduced their work efficiency. The feedback was taken and a third prototype of the table was developed by December 2011. The table was made of aluminum which addressed the weight issue and was of appropriate height and width. The third prototype was acceptable to the women workers and this was finalized on 4th January 2012. The cost of the finalized prototype is Rs 1800.

Fig.1. First prototype developed for the kite workers



Fig.2.The prototype finalized for the kite workers



READY-MADE GARMENT WORKERS

It was decided that a chair as per the needs of the ready-made garment workers will be developed as a prototype for this group. The first prototype was developed in October 2011. This was pilot tested for 15 days. The chair was re-designed as per the feedback from the women workers. Field testing of this prototype was done in January 2012. Field testing of the prototype required 50 hours of actual use by the women workers, which was closely monitored. The prototype was finalized in February 2012.

Fig 3. Prototype 1 developed for ready-made garment workers



Fig 4. Prototype 2 developed for ready-made garment workers



Fig 5. Finalized prototype for Ready-made garment workers



The women workers are satisfied with the above product. Their general feedback has been that it has increased the work efficiency and the back pain has reduced considerably because of the free tilt of the back of the chair and the provision for height adjustment. The cost of the finalized prototype is Rs 1740.

(IV) Making the prototypes available to the women workers:

Kite Workers – After we finalized our prototype, we found that the Gujarat State Workers' Welfare Board was providing kite workers with a work table at Rs. 50 per piece. This is a highly subsidized table, as compared to our total cost of Rs. 1800 per table. Therefore, it did not make sense to provide our tables when low cost and subsidized ones are available already to workers.

Instead, we will show our table to the Board and get them to consider a subsidized provision of it to the kite-workers.

Ready-made garment workers - The cost for the prototype (chair) is Rs.1740. A strategy was developed by LSST for increasing the outreach of the prototype. It was decided that a total of 148 chairs will be developed for the ready-made garment workers. The women members would be given a subsidy from the project of Rs 240, and would have to pay Rs 1500 for the chair. The women worker could make the payment in 5 installments. The first installment would be Rs 500, followed by four subsequent weekly installments of Rs 250.

Bilkishben Abdulsamant Sheikh, aged 40 years, lives in Sunderamnagar and is a ready-made garment worker for the last 20 years. She earns 2000 to 3000 Rs per month through this livelihood. She usually works for 5 hours (sitting continuously) for stitching the garments, due to which she would get back pain and pain in her legs. It was becoming increasingly difficult for her to sit for such long hours for stitching the garments. She would get tired and sleep, and therefore not able to complete her work. Her interactions with LSST health workers made her realize that the nature of her work, her posture while working and the chair she used was resulting in these occupational health problems. She agreed to test all the prototypes of the chair that was being developed through NID. She was very prompt in giving her feedback and gave her approval only after she found the chair to be very comfortable for working. Bilkishben's back pain has reduced after using this chair and her income also increased by 250 Rs. She has registered her name for purchasing the chair from LSST. 3 people in her house are involved in stitching garments. She has placed an order for one chair now and will purchase two more later. She has also been recommending the chair to the women workers (ready-made garment workers) in her neighborhood.

(V) Training health educators on Occupational Health issues, prevention and safety measures:

Master trainers and the health educators were provided orientation and trained on occupational health issues of the two target groups, kite workers and ready-made garment workers. While providing health education to the women workers, the trainers and health educators also provided the women workers information on simple exercises that they could do to prevent back, shoulder and limb pain.

Communication materials (such as posters, flip charts) on occupational health issues were developed. The communication materials developed are attached in *Annex 3*. The material basically focus on the "Do's and Don'ts while working.

(VI) Preventive health education and creating referral linkages

Health education on primary health care, reproductive health, non-communicable diseases and occupational health were provided to the women workers of the two target groups in Ahmedabad city and Surat city. Health education was provided through group sessions, one- to- one counseling, video replays and puppet shows.

In Ahmedabad city, health education was provided to 713 groups of women workers from the areas of Danilimbda, Saraspur, Meera Talkies, Sunderamnagar, Rakhial, Juhapura, Bapunagar, Vasna and Lambha. Referral linkages were created by conducting 191 medical camps (eye camps, general camps, reproductive health camps, and camps for screening heart disorders and diabetes) in the women workers areas. Similarly, in Surat city, health education was provided to 571 groups of women workers from the areas of Limbayatnagar. Referral linkages were created by conducting 11 general medical camps in the women workers areas.

The Way Forward:-

1. We intend to promote the use of the prototypes along with health education for the workers.
2. We will be holding a state-level dissemination workshop on occupational health of informal workers. The aim of this workshop is to disseminate the results of our studies and prototypes development of various and to ensure that the prototypes are adopted by the Workers Welfare Boards and provided to workers.
3. We will be holding National level dissemination workshop on occupational health and informal workers, inviting various stakeholders and organizations, including some from overseas.
4. We will work on making the prototype available at a still lower cost and through affordable for all workers.
5. We will share and promote the prototypes we have developed with the Gujarat State Workers' Welfare Board.