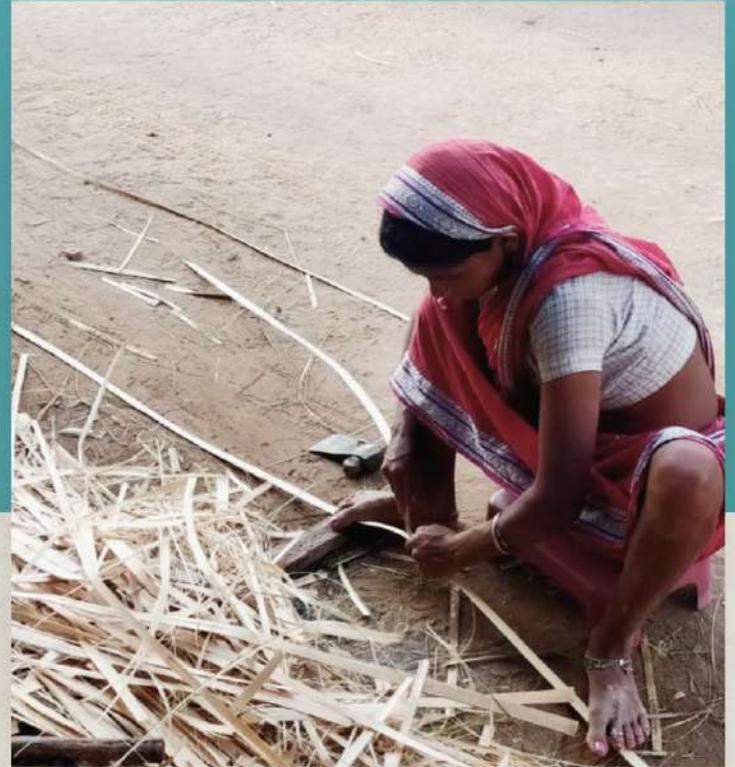


May 2022 - October 2022

OHS Training To Promote Bamboo MSME Clusters For Sustainable Development

A project that aims to increase the productivity, efficiency and holistic well-being of the 500 artisans in the Bamboo Artisan clusters community.





How It All Began

Desk Research Along with Online Research Being Undertaken in Conversation with Bamboo Artisans in Barpeta, Assam.





Summary

How can we sustainably produce crafts when the hands behind them are always struggling? While this is posed as a question, the declining well-being of our nation's artisan community is a fact, one that this project successfully offered real-time solutions towards.

The bamboo craft is a tedious and laborious art form causing extensive physical and mental health damage to the artisans' bodies. Thus, this project aimed to create footprints in the lives of the bamboo artisan community(s) in 9 states of India with Barpeta, Assam as the sample site and Sambalpur, Orissa as the implementation site).

To this end, the OHS Consultant used a combination of tools and techniques to create an 18-module training program comprising self-care techniques and body-mind interventions that would allow artisans to relax, increase their productivity and happiness-quotient, along with improving their working & daily life posture to reduce fatigue, pain, bodily wear and tear, et cetera.

The interventions imparted include creative movement activities, and somatic exercises taught via songs and poems. To reinforce learning via repetition posture calendar posters were provided. To improve the working posture prototype of an ergonomically designed workstation was provided Using a cascade effect training strategy towards implementation, 20 volunteer trainers (VTs) were trained to deliver the program through learning circles in their clusters, thus directly reaching 500 artisans and 5,000 indirectly!



Key Takeaways

- Trained 500 Bamboo Artisans in-person & 5000 Artisans indirectly across 9 states within MSME bamboo clusters.
- Trained 20 volunteer trainers (VTs) with teaching manuals to deliver OHS training through learning circles in their clusters.
- Designed 18 module user manual on posture/breath-work/self-care and provided to the trainers to assist in imparting similar training in the future too.
- Provided first of its kind ever ergonomic workstation recommendations and two prototypes (one in bamboo and one in wood) to be used by bamboo artisans for posture correction and higher productivity.
- Posture Posters developed as displayable calendars as a reminder of the training practices.
- Curated a complete SOP to be used as a template for OHS training in any industry.



HOW IT WAS TAKEN AHEAD

Online Research by OHS Consultant with the Local TA's Assistance to Understand the Lifestyle, Sleeping Posture & etc. of the Community



Artisan's use thin cotton pillows or crook to arm to support neck



Most Artisans stand & work in kitchen, they sit on floor for chopping



Most of them sleep on bed



Desk/Online Research by OHS Consultant To Understand The Problem Areas Of The Community

Some Occupational Health Safety Hazards Identified

- Back Ache
- Neck Pain
- Shoulder Pain
- Foot Pain & Knee Joint Pain
- Cuts & Bleeding on Fingers
- Pain in Wrists & Fingers
- No Work Stations
- Lack of Work Areas or Sheds
- Financial Worries & Stress
- Generalized Fatigue





Physical Problems

- Back Ache
- Neck Pain
- Shoulder Pain
- Loss of Natural Curve of Spine
- Cuts & Bruises
- Knee Pain
- Headaches
- Eye Strain

Psycho Social-Emotional Health Problems

- Emotional Stress
- Sleeplessness in Certain Cases
- Financial Worries
- Lack of Opportunities for Growth
- New Age Addictions Including Social Media

Work-Environmental Problems

- Lack of Work Stations
- Lack of Specific Work Areas /Sheds
- Lack of Protection from Harsh Weather
- Lack of Protective Hand Gear to Prevent Cuts & Bleeds





2022; Day 1; Rapport Building Within The Community Via Creative Movement





Site Visit 1: Barapeta, Assam, May 2022; Day 2

OHS Consultant interacting with the Artisans to gather feedback, understand current occupational scenarios, identify Artisans with training skills, understanding the layout of the land to plan the training delivery logistics.



SITE VISIT 1. Dairpeta, Assam, May 2022 - Day 2 **Brainstorming Towards Creation Of An Ergonomic Workstation.**



OHS Consultant brainstorming with the local bamboo furniture & silver cutting Artisans for Ergonomic design workstation



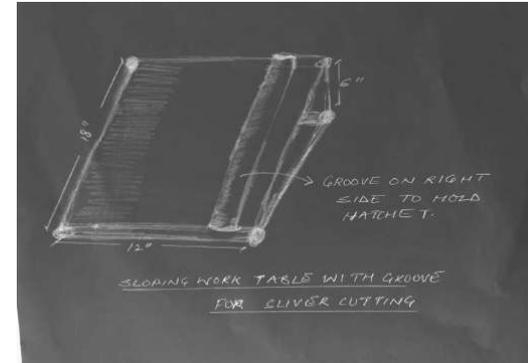
Prior to this the Artisan's were not open to the idea of any EDR workstation. But, once they understood the benefit they eagerly participated in its creation.



June 2022, R & D Towards Making Bamboo Art Happier & Healthier, [Ergonomic Design Recommendations]



Work Stool 1



Work Stool 2

Misaligned Pelvis & Forward Head Posture Due to lack of proper work stools. The Artisan sits in a tilted pelvis position & Slouched over in FHP for long hours leading to misaligned pelvis which can cause neck shoulder injuries, headache and neck shoulder pain.



Healthier; Takeaways From Site Visit 1; EDR [Ergonomic Design Recommendations]



Current Status; The Artisans sit on makeshift logs with no back support. Low back ache, neck pain, eye strain, fatigue, irritability are common & serious complaint hence



Sketch for EDR Sitting Stools for Bamboo Artisan

EDR: Sitting stool with curved backrest [like a dentist has]

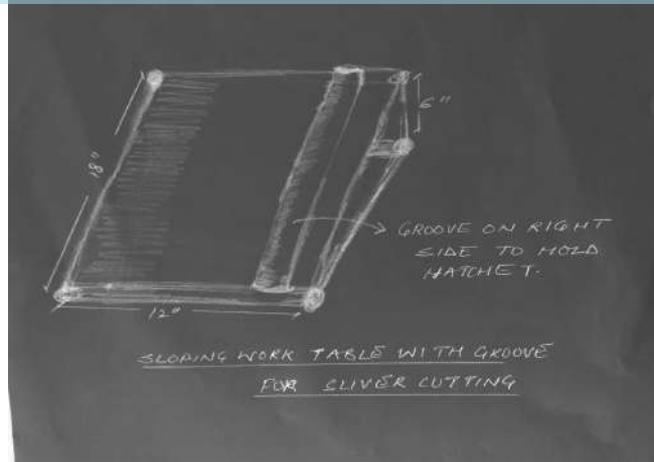
Dimension; L*B*H=height = 12in*18in*9 in

Backrest= [9 inches in height]

June-Aug 2022, R & D Towards Making Bamboo Art Happier & Healthier Takeaways from Site Visit 1; EDR [Ergonomic Design Recommendations]



Current Status; No back support Or work tables for sliver cutting. The Artisan sits for hours like this.



Sketch for EDR Work Table for Bamboo Artisan

Sloping Work table 1- with adjustable stand / stopper -[to bring the level of the head up to prevent FHP “forward Head Posture “ and a groove ON RIGHT SIDE to insert & hold the hatchet in place [to free the foot to enable freedom of movement]

Height minimum = 2.5 inches maximum =6.inches |
L*B =12*inches 18*inches

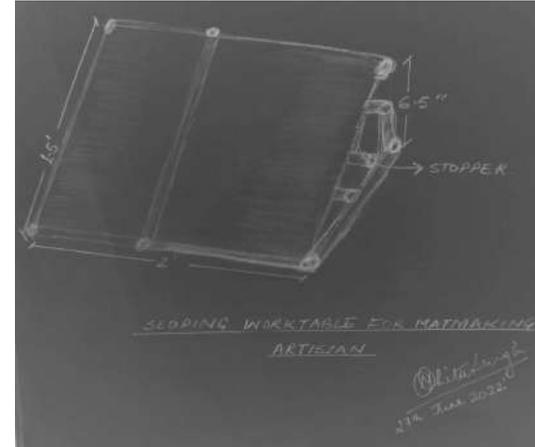


June-Aug 2022 , R & D Towards Making Bamboo Art Happier & Healthier; Takeaways from Site Visit 1; EDR [Ergonomic Design Recommendations]



In basket making the weavers are required to hold the basket in one place using their foot until the basket is made to the point it can be held between the knees.

The pelvis lies lower than the hip leading to the sacrum rounding up and tightening. There was no ergonomic stool or work table, no protective hand gear, first aid box, or adequate lighting or ventilation [when working indoors]



Sketch for EDR Work Table for Bamboo Artisan Sloping Work Table 2

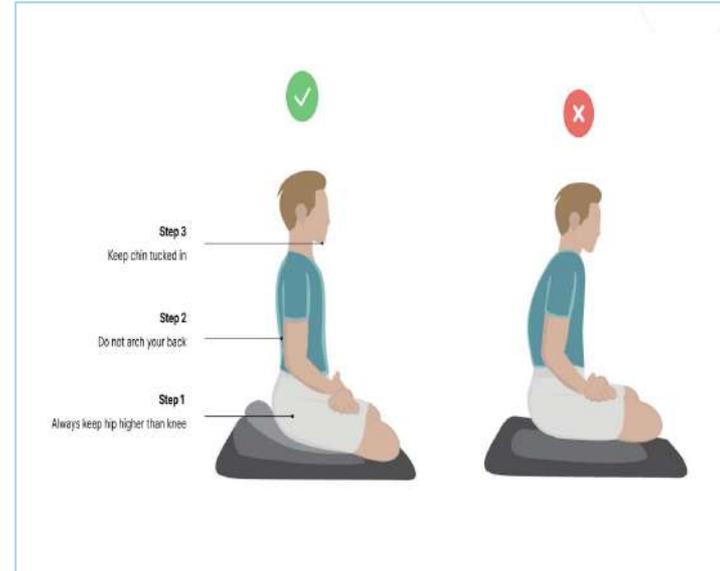
Adjustable stand / stopper = minimum height 2.5 inches
and maximum 6.5 inches |
L*B=2 feet by 1.5 feet



Requirement to Teach Body Awareness via Good Posture & Movement



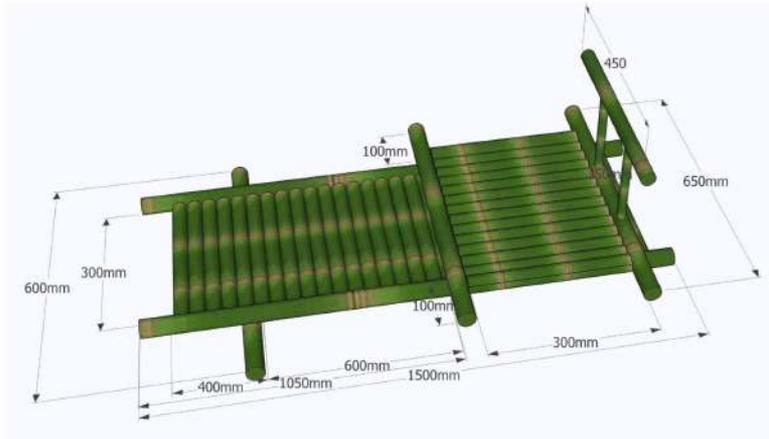
No back support Or work tables for sliver cutting.
The Artisan sits for hours like this.



Right Sitting Posture



Takeaways From Site Visit 1: EDR Recommendations For Mat Making and Basket Making



Prototype A [SCUBA]; Architect: Vishal Rawat @[Abaxis]

- Easy to make by artisan himself
- Stackable & sustainable
- Easy Maintenance





Takeaways from Site Visit 1: Prototypes based on OHS consultant's inputs for EDR Recommendations For Mat Making and Basket Making



Prototype A
SCUBA: Sliver Cutting Utility for Bamboo Artisans
By
Architect Vishal Rawat
Abaxis



Prototype B
Monikuntala Das
IIT Guwahati

Site Visit 1 ;EDR Recommendations For Protective hand gear



4.1.1 Hand Gear and Gloves



Suede protector for cuts

Hard edge support

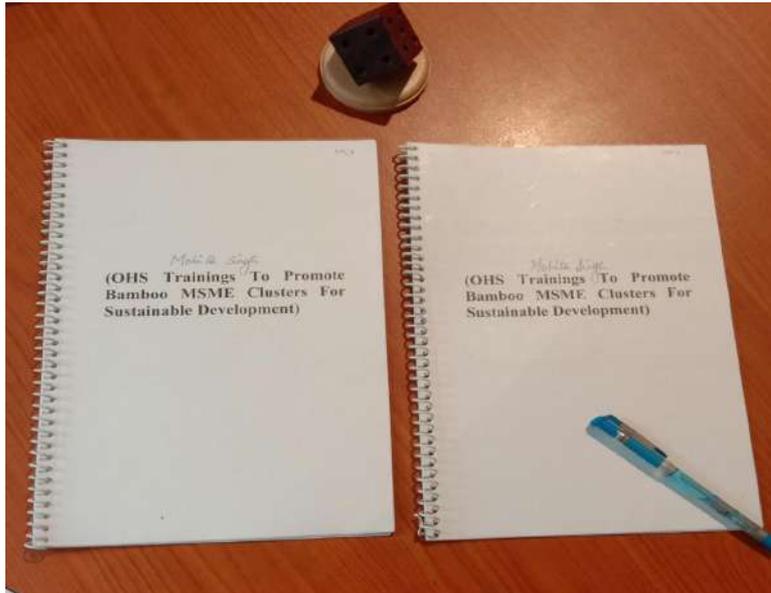
Palm protection



These are reference ideas for protective hand gloves from OHS for IKKAT weavers . Similar design can be made for Bamboo Artisans with silicon caps.



Takeaways From Site Visit 1: Preparing the two training Manuals with 18 modules in English and for translation into local language



উদ্দেশ্যসমূহ

20 গনাকী মুক্তাবক পিকাবব বাবে

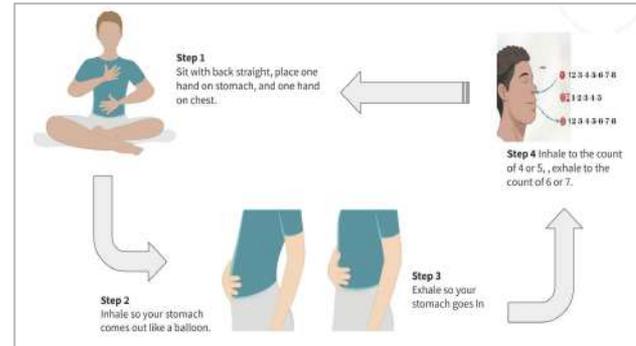
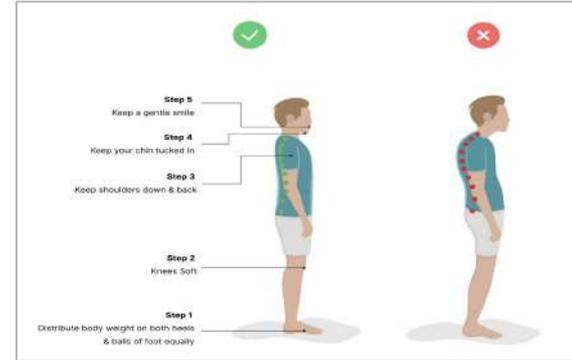
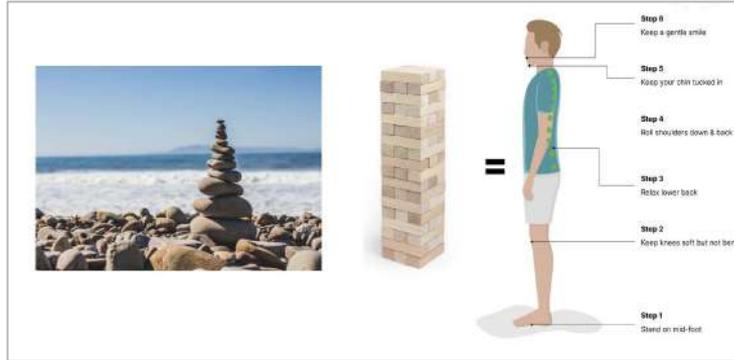
1. কাম কবি থকা সময়ৰ উত্তম দেহতশীৰ কথা পিকা,
2. দৈনন্দিন জীৱনৰ উত্তম দেহতশীৰ কথা পিকা,
3. উত্তম দেহতশী বৰ্তাই ৰাখিবলৈ কিছুমান সহজ ব্যায়াম পিকা,
4. মানসিক চাপ দূৰ কৰা কিছুমান সহজ ব্যায়াম পিকা,
5. নতুন ইন্টিআৰ-খন ব্যৱহাৰ কৰিবলৈ পিকা,
6. গোটস্বাৰ্থৰ বৃদ্ধি দাবী পিকা।

ফলাফলসমূহ

1. মানসিক, আৱেগিক, শাৰীৰিক আৰু মাৰফত (বেশশক্তি) ৰাশ্য উন্নত কৰে,
2. নিঠৰ বিশ্ব, ভিত্তিৰ বিশ্ব, চকুৰ টনটননি, অঁঠৰ বিশ্ব ভাল কৰাৰ লগতে হজমশক্তি বৃদ্ধি কৰে,
3. মানসিক চাপ আৰু উদ্বেগতা দূৰ কৰাৰ লগতে উৎসাহানশীলতা আৰু উদাৰতা বৃদ্ধি কৰে,
4. গুৰিবাত ৱাংইচ৭৮-ৰ বাবে তথ্য সংগ্ৰহ।



Takeaways from Site Visit 1: Preparing OHS Posture Posters & in Local Language





Takeaways From Site Visit 1: Creation of PMAIS [Participatory Monitoring Impact assessment System [Data Collection Forms & In Local Language] A Google form was created to collect data from 587 artisans in Odisha wrt to OHS hazards as mentioned in slide 5.

FMC OHS – BOP/EOP Data Collection Form

-এফএমসি অ'এইচএছ – বিঅ'পি/ইঅ'পি তথ্য সংগ্রহ
প্রপত্র

Dear Trainers,
- প্রিয় প্রশিক্ষকবৃন্দ,

This 'Beginning-of-Program Data Collection' / 'End-of-Program Data Collection' form aims to gauge the position where the artisans are (both mentally and physically) before the official commencement of the program. The data we collect through this form will become the starting point of our assessment on the kind and extent of benefit that the artisans experienced through our programs.

- এই 'কার্যসূচীর আৰম্ভণিৰ তথ্য সংগ্ৰহ' / 'শেষৰ তথ্য সংগ্ৰহ' ফৰ্মটো
আপুনিৰ কাৰ্যসূচীৰ আৰম্ভণিৰ আগতে
Page 1 / 10
ইদেখা হৈছে কাৰ্যসূচীখন
আপুনিৰ শাসনীয় উদ্দেশ্যসমূহৰ

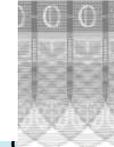
Do you struggle with pain or tightness in your lower back region?
আপুনি পিঠিৰ নিম্নাংশত বিষোৰা বা টানি ধৰা সমস্যাত ভুগি আছে নেকি?

 Awesome, i have no pain in my lower back!
বহুত ভাল, মোৰ পিঠিৰ তলফালে কোনো বিষ নাই!

 My lower back has mild pain
মোৰ পিঠিৰ তলফালে অলপ বিষ আছে

 Yes, i have lower back pain
হয়, মোৰ পিঠিৰ তলফালে বিষ আছে হয়

 My lower back is severely strained and in a very bad condition
মোৰ পিঠিৰ তলফালে গুৰুভাৱে টানি ধৰে আৰু অতি বেয়া অৱস্থাত আছে



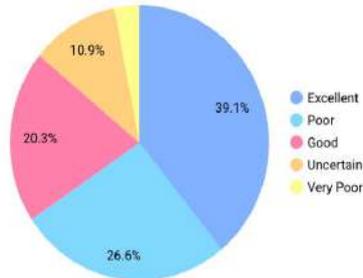
The FMAS (Participatory Monitoring Impact Assessment System) Captured Data of 307,145 users. Given Below; a consolidated analysis of the data collected from each district.

BOP DATA

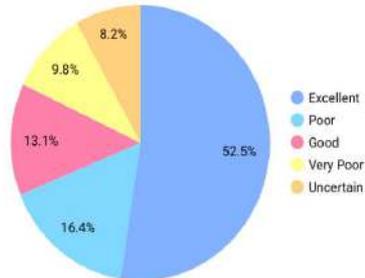
Visual Data Representation

Record Count
586

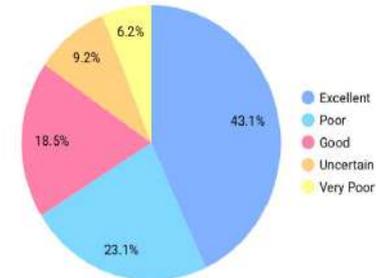
Physical Health



Mental Health / Psycho Health



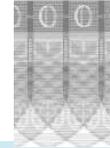
Work Environment





Site Visit 2: Sambalpur, Odisha, Sept 13 - Sept 20, 2022 OHS Consultant To Volunteer Trainers Training; Rapport Building with Volunteer trainers for OHS training via Good Posture & Holistic Health





**Site Visit 2: Sambalpur, Odisha, Sept 13 - Sept 20, 2022 ;OHS
Consultant to Volunteer Trainers Training; Training Volunteer trainers for OHS training
via Good Posture, Body Awareness & Holistic Health**





SITE VISIT 2: Sambalpur,
Odisha, Sept 13 - Sept 20, 2022;
OHS Consultant To Volunteer Trainers Training; Some Changes Captured in Body
Posture using Somatic Movement





**Site Visit 2: Sambalpur,
Odisha, Sept 13 - Sept 20, 2022 ;OHS Consultant to Volunteer Trainers
Training: Mock Facilitation Drills | The Volunteer Trainers giving Feedback on EDR Workstation**





Site visit 2: Sambalpur, Odisha, Sept 13 - Sept 20, 2022 On
Consultant to Volunteer Trainers Training; Revision of Good Posture Doubt Clearing|
Manuals Usage| EDR Workstation Testing





OHS Consultant To Volunteer Trainers Training;;

OHS Consultant giving Volunteers Trainers feedback to Architect for Workstation Design Improvisation via Video Calls





Site Visit 2 September 2022; Sambalpur ,Odisha -

OHS Consultant to Volunteer Trainers Training; Psycho-socio-emotional Well Being via Posture & Movement- Building the Heart of a Volunteer Trainer.

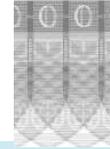
Self Belief & Confidence Building
counselling to the Volunteer trainers went a long way towards empowering them to be to be confident Volunteer Trainers





Site Visit 2: Sambalpur, Odisha, Sept 13 - Sept 20, 2022 Volunteer Trainers To Artisans Training To Impact 500 Direct Artisan's : VT's Preparing to Now Train The Local Artisans Of their communities via Somatic & Creative Movement





Site Visit 2 September 2022;

Volunteer Trainers To Artisans Training To Impact 500 Direct Artisan's; The super Healthy & fit Artisan Elders in Sambalpur, Odisha; giving Feedback on the Training Experience It was Interesting to Note that the Elders in Certain Communities were Extremely Fit & Agile vs the Artisan's Aged Between 30's & 40 years of Age





Site Visit 2: Sambalpur, Odisha, Sept 13 - Sept 20, 2022

Volunteer Trainers To Artisans Training ; Volunteer Trainers Co-facilitating & getting Increasingly Confident to Teach OHS via ood posture & Holistic health via Somatic & Creative Movement.





**Noida To Sambalpur, Odisha, 1st October To 10th October
2022 ; Volunteer Trainers To Artisans Training ; Online Training Under OHS
Consultant Supervision To Impact 500 Direct Artisans Successfully Continues.**





Noida To Sambalpur, Odisha, 1st October To 10th October

2022 Volunteer Trainers To Artisans Training ;Online Training To Impact 500 Direct Artisan Jubilant & Emotional Closure with OHS Consultant & her Team @Movement Matters





Occupational Health Safety Training Bamboo Artisan Community In India;The Project Outcome;

As a part of the OHS Training to increase productivity, efficiency and holistic well-being in the Bamboo Artisan Community, OHS Consultant:

- Trained 500 Bamboo Artisans in-person & is anticipated to improve the lives of 5000 Artisans across 9 states with MSME bamboo clusters
- Provided first of its kind ever ergonomic workstation recommendations and prototypes
- Posters developed as displayable calendars as a reminder of the training practices
- User manuals provided to the trainers to impart training in future too



Foundation for MSME Clusters (FMC)



swit^hchasia

Happiness, health, and work exist together. The journey continues.
Thank you.

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