

Sandhani

Weaving Transformations in Kachchh
The Full Report

સંઘણી

કચ્છી હાથવણાટની ઉઘડતી ક્ષિતિજો



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Report by

Kalpavriksh and Khamir, with the Vankars of Kachchh

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Glossary

| | |
|----------------------|---|
| Aarti | benediction in Hinduism |
| Aawald | marigold, <i>Cassia auriculata</i> , a small perennial plant species with yellow flowers, used earlier as a dye |
| Ahir | farming community in Kachchh |
| Amawas | new moon day |
| Bandhini | tie-dye |
| Beej | seed, the day after new moon day |
| Beti-deti vyavhaar | relationship between families that women can marry into |
| Bhajan | devotional songs |
| Bhajanik | singer of bhajans |
| Bharwada | pastoral community in east Kachchh |
| Charkho | a spinning wheel |
| Chhaap | identity; print |
| Dalit | members of the 'lower' castes in the India society who face(d) high level of untouchability, discrimination and oppression. |
| Darbar | a landholding caste/community in Kachchh |
| Daru | alcohol |
| Dera | camp |
| Desi | local; indigenous |
| Dhablo/dhabla/dhabda | blanket |
| Dhanibawa | the almighty energy/force that created the universe, according to the Meghwal community |
| Dharmaguru Matan Dev | main priest in the Maheshwari community |
| Dharmik | religious |
| Dhurrie | thick carpet |
| Diwali | festival of lights in Hindu culture |
| Dupatta | long scarf-like garment, typically worn by women |
| Fani | reed |
| Ganda Baval | exotic species of tree invasively spread across Kachchh, <i>Prosopis juliflora</i> |
| Godi | a wooden stand used for starching or sizing purpose |
| Gurjara | sub-group of Meghwal community |
| Gutka | tobacco |
| Ikat | a type of resist tie-dye weave, from Telangana and Odisha |
| Jajmani | relations of patronage |
| Jal | water |
| Jala | setting that lifts the warp yarns in, as per design requirements, to facilitate insertion of extra weft threads |
| Kaccha | in this case, houses made from mud, thatch, and/or local materials |
| Kachchhi | from/of or native to Kachchh |

| | |
|------------------|---|
| Kalakar | artist |
| Karigar | artisan |
| Khadi | a fabric that is handspun and handwoven |
| Kharad | a type of handloom weaving |
| Khatri | artisanal community of Kachchh, well-known for dyeing and printing skills |
| Kheti | farming |
| Khuta | a part of the loom that facilitates forward movement of the warp, also called 'Ganesh' |
| Killori | a brush used during sizing, a pre-loom process when starch is added to strengthen the warp threads |
| Kurta-pyjama | a type of dress worn in India |
| Ludi/Luni | a tie-dyed veil worn by Rabari women |
| Maal | wool; livestock |
| Magaj-shakti | a kind of mental power |
| Mahabharata | ancient India epic, also used as a religious text |
| Mahajan | a patron who does charity for or in other ways supports his/her community |
| Maheshwari | a sub group of Meghwal community in Kachchh |
| Maida | processed wheat flour |
| Maitri Mandal | a group of friends |
| Majoor/mazdoor | labourer; daily wage |
| Majoori | wages, or labour |
| Mandal/mandli | group, cooperative or committee |
| Mandap | temple porch |
| Marwada | a subgroup of Meghwal community in Kachchh (same as Megh-Marw) |
| Mashru | type of weaving technique, famous for unique fabric construction, many paddles and shiny short width fabric |
| Megh Maya | a historic figure regarded as a saint who sacrificed his life for the weaving community |
| Megh-Marw | subgroup of Meghwal community in Kachchh (same as Marwada) |
| Meghwal/Meghawar | the generic community group which the weavers are a part of |
| Mehnat | hard work |
| Miri | type of design in handloom weaving |
| Nijar Dharma | belief in an omnipresent force that governs the universe |
| Nirgun | a formless divinity symbolised by a lamp |
| Olakh | identity |
| Paatkori | a religious practice of worshipping a formless entity |
| Pachhedi | a traditional headcloth of the Ahir community |
| Pagadi | turban |
| Panchayat | village council |
| Patel | caste group, traditionally doing farming |

| | |
|---------------------------------|---|
| Peti retiya | charkha in the box |
| Patola | a type of ikat weave of Gujarat |
| Pheri | wandering around with handloom products for sale |
| Prasad | offering, usually a food item, after prayers |
| Pukka | solid and permanent houses |
| Rabari | a pastoral community in Kachchh |
| Rajput | a caste/community in Kachchh |
| Rajtilak | coronation |
| Rakh | ash |
| Ramayana | an ancient India epic used as a religious text |
| Ramdev Pir | a deity revered and worshipped by the Meghwals |
| Ranch | shaft |
| Reyan | conversations that are not time-bound |
| Rikhya/Rakhiyo | traditional relationship of weavers performing certain tasks for a fixed set of families of other communities |
| Roti | a type of flat bread |
| Roti vyavhar, beti vyavhar nahi | relations where food exchange is allowed, but not inter-marriage |
| Samaj | a community |
| Sammelan | conference |
| Samooch Lagna | a community or mass marriage |
| Sarpanch | head of the village council |
| Settie palang | a storage bed |
| Seva bhavana | desire or commitment to serve others |
| Sita | a Hindu goddess |
| Takli | a small hand held cotton or wool yarn spinner |
| Tangaliya | a weaving technique famous in east Kachchh |
| Tor | the cloth-rolling beam fixed in front of the weaver's seat |
| Udyog | Industry |
| Vadha | a forest dwelling artisan community in Kachchh |
| Vankar Mandali | weaver cooperative |
| Vankar | weaver |
| Vanaat | weaving |
| Varath | a locally available tuberous plant of onion (probably a species of genus Dipcadi), traditionally used for starching or sizing purpose |
| Ven Parmars | a sub-group of Rajputs in Kachchh |
| Vora | a Muslim community in Kachchh |
| Yuva/Yuvak | youth |

List of Abbreviations

| | |
|------------|---|
| ACKnowl-ej | Academic-Activist Co-Produced Knowledge for Environmental Justice |
| ATF | Alternatives Transformation Format |
| ATIRA | Ahmedabad Textile Industry's Research Association |
| BAMSEF | All India Backward and Minority Communities Employees Federation |
| CEP | Cotton End Product |
| EFA | Ecological Footprint Assessment |
| GHG | Green House Gas |
| GI | Geographical Indication |
| GSH&HDC | Gujarat State Handicrafts and Handloom Development Corporation |
| GST | Goods and Services Tax |
| IPR | Intellectual Property Rights |
| KDC | Kutch District Cooperative Bank |
| KMVS | Kutch Mahila Vikas Sanghatan |
| KRV | Kala Raksha Vidhyalaya |
| KWA | Kutch Weavers Association |
| LCA | Life Cycle Assessment |
| SKV | Somaiya Kala Vidya |
| UNCTAD | United Nations Conference on Trade and Development |

Summary

This is a study of the multiple dimensions of transformation taking place in the livelihoods of the vankar (weaver) community of Kachchh, Gujarat, India, linked to an overall revival of the handloom weaving (vanaat) craft from a time when it was in sharp decline. Using an analytical tool called the Alternatives Transformation Format, the study assessed, using participatory processes and methods, changes taking place in economic, social, cultural, political and ecological spheres of a community's life. It looked at whether such changes can be said to be in the direction of alternative transformation, i.e. systemic or structural change towards justice and sustainability.

The study is a collaboration amongst three partners: Kalpavriksh, Khamir, and the community of vankars as represented by some of its senior members. For Kalpavriksh, it is one of several case studies that have been conducted within the global project 'Academic-Activist Co-Produced Knowledge for Environmental Justice' (www.acknowledgej.org). Khamir joined the process as a local craft organisation doing intensive work with weavers of Kachchh.

Four positive features of the transformation in weaving and in related aspects of the lives of the vankar community, are highlighted in this report:

- i. an overall increase in well-being, especially economic, and a continued sense of identity and belongingness in relation to the craft
- ii. the retention or return of youth to vanaat, with a mix of economic, socio-cultural, and psychological incentives
- iii. linked transformations in social relationships, including in caste (a reduction in casteism faced by a community traditionally considered at the bottom of the hierarchy), gender (a greater role and voice for women), and generations (a greater assertiveness amongst youth while retaining traditional respect for elders)
- iv. a flowering of innovation and creativity, and hybrid knowledge and learning systems, without losing the essence of Kachchh's vanaat.

The study points out, however, that transformations, being complex social phenomena, are not necessarily internally complementary; positive ones may be accompanied by regressive one. Three key issues are focused on:

- i. increasing and increasingly visible economic inequality, between two broad 'classes' of weavers (entrepreneurs and job workers), and amongst geographically spread out settlements with those close to Bhuj (the district capital) and main markets being able to avail of the transformative factors more than others
- ii. increasing ecological footprint due to a shift from predominantly local exchange of raw materials and finished products, to a more national and globalised exchange, though a rise in the use of locally grown organic cotton (*Kala*) offsets this somewhat
- iii. a near-absence of collective mobilisation relating to livelihoods amongst the vankars, though there are some very recent initiatives that are promising.

The study also explored key factors in bringing about such transformations, including:

- i. the role of agency, such as the adaptability, resilience, and innovativeness of the weavers themselves, the facilitation of institutions enabling innovations in production and marketing, and others
- ii. the key circumstances (in economy and society) that contribute directly or indirectly, such as new consumer tastes and markets, new techniques and technologies, and in this case a massive earthquake that was a crisis turned into an opportunity.

The study briefly looks at how robust or fragile the transformation towards well-being is, and finally brings out some key lessons for transformations towards justice and sustainability.

As a specific sub-focus in the study, a detailed 'ecological footprint assessment' was attempted based on a small sample of weavers, comparing the impacts of the organic (*Kala*) cotton and of the genetically modified (Bt) cotton. This found that the former has a clearly smaller footprint than the latter.

1. Introduction

This study attempts to look at the multiple dimensions of transformation taking place in the livelihoods of the vankar (weaver) community of Kachchh, Gujarat, India, as part of and resulting from an overall revival of the handloom weaving (Vanaat) craft from a time when it was in sharp decline.² It has examined whether the changes taking place can be said to be in the direction of alternative transformation, i.e. systemic or structural change towards justice and sustainability.

The study has been a collaboration amongst Khamir (www.khamir.org), a craft facilitation institution working with traditional crafts of Kachchh, Kalpavriksh (www.kalpavriksh.org), an environmental action group based in Pune, and the community of vankars. Khamir's motivation was to understand the transformation that has happened in the weaving community to get a reflection on its own work. For Kalpavriksh it was a part of a global project, the Academic-Activist Co-Produced Knowledge for Environmental Justice (www.acknowledgej.org).

This report presents the key results of the study: how well-being has increased, along with positive transformations in caste, gender, and generational relationships, but also how on issues of class and ecological sustainability there have been some regressive trends. It analyses some key lessons regarding transformation towards justice and sustainability, and issues with regard to current and future sustainability (economic, social, ecological) of weaving.

All traditional livelihoods in India have faced severe crises caused by multiple factors. One major reason is the state-sponsored project of 'development' and 'modernisation' which has prioritised secondary and tertiary economic sectors over the primary, mechanisation and industrial-scale production instead of hand-

made and small-scale, education systems that alienate children and youth from the livelihood roots of their families, and mass consumerism that can only be fed by homogenous mass production. Many crafts have been in decline since colonial times, with the British rulers deliberately favouring industry in Britain over that of India (a significant example being that of cotton), see Menon and Uzramma 2017, or taking over common lands (especially forests) on which these crafts were dependent. Ecological degradation has been another factor, with the declining availability of many raw materials needed for craft.

Within this overall context, the revival of handloom weaving in Kachchh, bucking the national trend, is interesting. There were several specific motivations involved in choosing this as a case to study:

1. The initial interest of Khamir, which has had a significant role in the revival of vanaat in Kachchh, to understand the ecological footprint of the craft; an assessment of this kind could be used as a means of testing the claim that handloom weaving is eco-friendly (especially in comparison to powerloom and industrial production of cloth), and/or consider interventions if aspects of it are found to be ecologically insensitive. Khamir's interest later expanded to understand the holistic transformations that have taken place in the sector, from social, economic, cultural, environmental and political prisms. It was also interested in seeing how the learnings would reflect back on its own work.
2. Kalpavriksh's interest in using the Alternatives Transformation Format (ATF, see *Methodology and limitations*, below) to study not only the ecological dimension but

² This study was coordinated by Ashish Kothari on behalf of Kalpavriksh and Durga Venkataswamy on behalf of Khamir, and involved in its core team Juhi Pandey and Ghatit Laheru of Khamir, Radhika Mulay, Kankana Trivedi and Arpita Lulla of Kalpavriksh, external consultants Meera Goradia and Arun Mani Dixit, and senior weavers Shamji Vishram Siju, Meghji Harji Vankar, Murji Hamir Vankar, Ramji Maheshwari, and Naran Madan Siju. Suraj Jacob as a member of the India advisory team for the ACKnowl-EJ project, provided valuable comments and inputs. Comments were also provided by several members of the project from within and outside India.

also other dimensions of transformation; this format was developed as part of ACKnowl-EJ but emerged from an older process of documenting and networking alternative initiatives across India called Vikalp Sangam (Alternatives Confluence, see www.vikalpsangam.org).

3. An interest amongst the weaver community, as expressed by some of its elders, for documentation of its history and changes in the last few decades, to help transmit this to new generations.
4. The possibility of using the study's results to generate further discussions amongst all the partners, on interventions of benefit to the vankars as also to the environment.
5. An interest in Khamir and the consultants involved, in seeing if such a study could become an example for or provide key lessons for similar multi-dimensional studies of handloom sector in other parts of India, or even studies of other craft sectors.

With these motivations, the overall objective of the study is:

1. To understand the extent and dimensions of transformation amongst vankars, linked to the revival of weaving.
2. To understand the impacts of this transformation on the lives and livelihoods of the vankars, and on related aspects including relationship with other communities, the environment, and internal social dynamics.
3. To explore whether the various dimensions of transformation (economic, political, social, cultural, ecological) are holistic, i.e. whether the enhancement of economic livelihoods has resulted in a consistently progressive transformation in other spheres of life (towards greater justice, sustainability, and equity), or to some regressive trends also.



One of the village meetings with the *vankars* of Jamthada village along with members from Khamir, Kalpavriksh and *vankars* from the core team

2. Methodology and Limitations

The study, carried out from mid-2017 to early 2019, has involved three main actors: Kalpavriksh, Khamir, and the vankar community. A number of consultants have been part of the study, including experts in Indian crafts, an ecologist, and an economist.

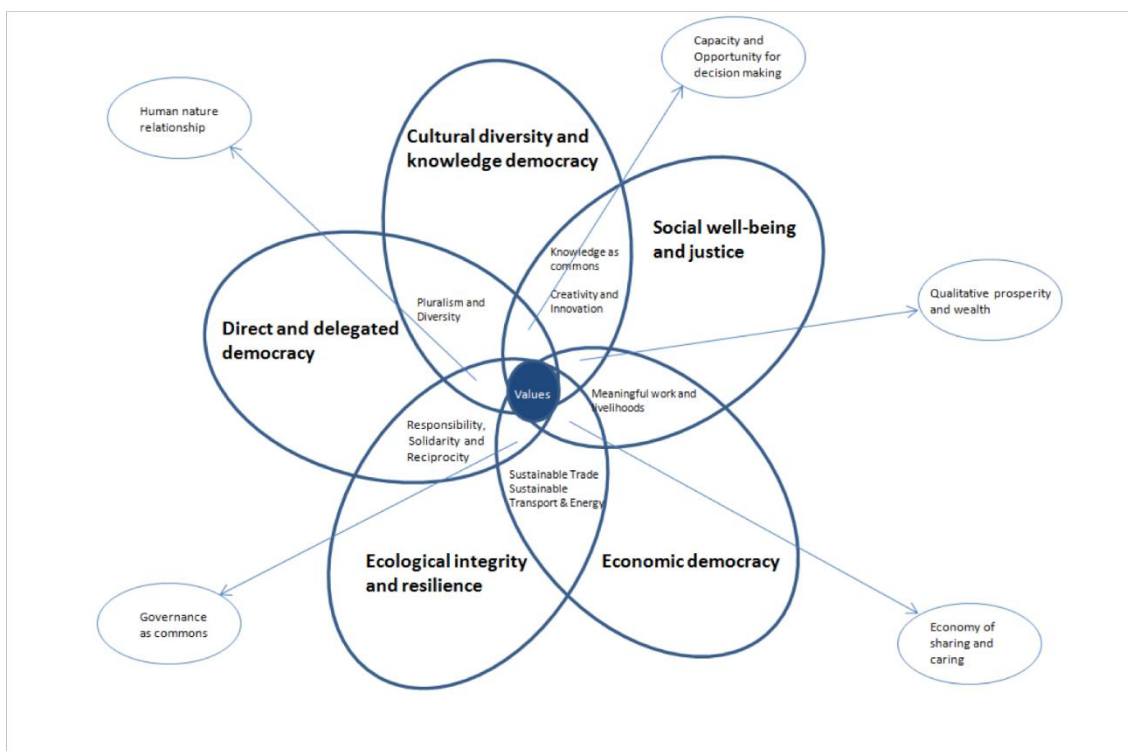
2.1 Conceptual framework

The study is based primarily on the use of the Alternatives Transformation Format (ATF)³. The ATF is designed to assess transformations taking place along five spheres (economic, political, social, cultural, ecological; see Figure 1) in any initiative of change. As it notes: “across the world there are initiatives by communities, civil society organisations, government agencies, and businesses to tackle the challenges of unsustainability, inequity, and injustice. Many of

them confront the basic structural reasons for these challenges, such as capitalism, patriarchy, state-centrism, or other inequities in power resulting from caste, ethnic, racial, and other social characteristics; we call these transformative or radical alternatives.” The ATF helps to get an understanding of whether changes are taking place towards alternative transformations, i.e. greater direct or radical democracy (where people on the ground are core part of decision-making), more control over the economy by the public (rather than by the state or corporations) and the revival of relations of caring and sharing, sustaining or reviving cultural and knowledge diversity and the commons, and greater equality and justice on gender, class, caste, ethnic, ‘race’, and other aspects, all of this on a base of ecological resilience and sustainability and on fundamental ethics of co-existence amongst humans and between humans and nature.

Figure 1: Spheres of alternatives transformation

(Note: the topics mentioned in the overlapping areas are only indicative, not exhaustive)



³ http://www.vikalpsangam.org/static/media/uploads/Resources/alternatives_transformation_framework_revised_20.2.2017.pdf. The ATF has its origin in a process in India called Vikalp Sangam ('Alternatives Confluence'), a platform for bringing together organisations and people working on alternative transformations, and in particular a document that has emerged from this process called 'The Search for Alternatives: Key Aspects and Principles' (<http://vikalpsangam.org/about/the-search-for-alternatives-key-aspects-and-principles/>). While emerging from the experience of Indian processes, it was recognised in the ACKnowl-EJ project that the ATF has wider relevance, and could be universal in its applicability (with due modifications for local contexts).

This is the first-ever study in India to look at a craft from multiple dimensions (economic, socio-cultural, political, ecological, ethical), and the first in the world to use the ATF. It was considered to be a good candidate because, *prima facie*, there appeared to be many dimensions to the transformation taking place in the lives of vankars, and different study partners were interested in different dimensions but also in seeing how it all looks as one picture.

2.2 Methods and processes used

In the first few months of the study (mid to late 2017), the core study team discussed the ATF within itself and with the core team of weavers. Realising that it would not be possible to use it comprehensively given time and resource constraints, the team narrowed down the elements for study to about a dozen, based on preliminary visits to some villages and the early observations of what seemed to be important. The shortlisted elements were discussed again with the core team of weavers, at which stage some changes were made (e.g. some cultural aspects the study team members of Khamir and Kalpavriksh wanted to look into, were dropped as they were considered too sensitive and potentially misleading by the vankars). The ATF was never used as a questionnaire or format in the visits to the villages or focused group discussions; rather, the key elements were introduced in the form of issues such as the *relationships* of vankars within themselves, and between them and other communities, the State, nature, and the market, and the *historical* changes that have taken place in the community and its craft.

Briefly, the methods used for the study included:

1. Choosing, keeping in mind time and resource constraints, a sample of 15 villages with about 600 weavers (out of a total of 62 villages with about 1000 weavers) for study, based on a *prima facie* understanding of where transformation has taken place as a result of Khamir's work and/or other interventions (even as an associated study and a database survey during the process would get a broad understanding of the entire vankar community as a context)⁴;
2. Selecting a team of senior vankars, based on knowledge within Khamir, to involve in the study, as also periodically bounce off ideas and results;
3. Involving in a part of the study, a group of vankar women from one particular village where they are organised into a loosely knit weaving group;
4. Involving in video documentation and as part of discussions, a group of youth from amongst the vankars;
5. One or more visits to each of the 15 villages, for group discussions, one-to-one interactions, and observations, mostly amongst vankars, and a very small number of other communities such as Ahirs and Rabaris (see Annexure 2 for a full list of visits);
6. Visits to other sites for the ecological footprint assessment (EFA), including farmers growing Kala cotton, traders, spinning and ginning mills, and dye units (see below, more on the EFA methods).
7. Focused group discussions with women, youth, and elders (see Annexure 2 for a full list of discussions);
8. Perusal of secondary literature available with Khamir, and with Kachchh Mahila Vikas Sangathan (a group working for women's empowerment across Kachchh);

⁴For a full list of the 68 villages where active weavers were found in the database survey, see Annexure 1. The 15 selected villages are: Bhujodi, Awadhnagar, Kotay, Jamthada, Faradi, Siracha, Rampar Vekra, Godhra, Adhoi, Sanganara, Mathal, MotaVarnora, Ghanithar, Sarali, Ningal. Unless otherwise specified or clearly contextualised, wherever this report refers to vankars, it is about weavers from these 15 villages.

9. Discussions with some key people involved in interventions or studies with vankars in the last 3 decades⁵;
10. Discussion on key results with vankars, including the various teams mentioned above, and separately with women, with youth, and in clusters of villages;
11. Conducting a baseline survey of weaver families across Kachchh

Along with the ATF, one aspect the study has gone into in greater depth and detail than others, was the ecological impact of the revival of vanaat. For this, a partial Ecological Footprint Assessment (EFA) was carried out, using a mix of quantitative and qualitative methodologies in an attempt to get a broad understanding of the craft's impact, as also develop a template that could possibly be used for handlooms elsewhere, and with modifications for other crafts. The EFA has not been attempted for the entire handloom sector in Kachchh, but rather for that part which uses cotton, and here the main objective is to calculate and compare the ecological footprint of different types of cotton (Kala and Bt are used in Kachchh). The tools for data collection were case studies along the cotton value chain, interviews of key informants using a closed ended questionnaire; and for calculations, the Cool Farm Toolkit (<https://app.coolfarmtool.org/>).

Additionally, participatory video documentation was carried out with a group of youth from amongst the vankars, to be made into 6 short films on various aspects of the transformation.

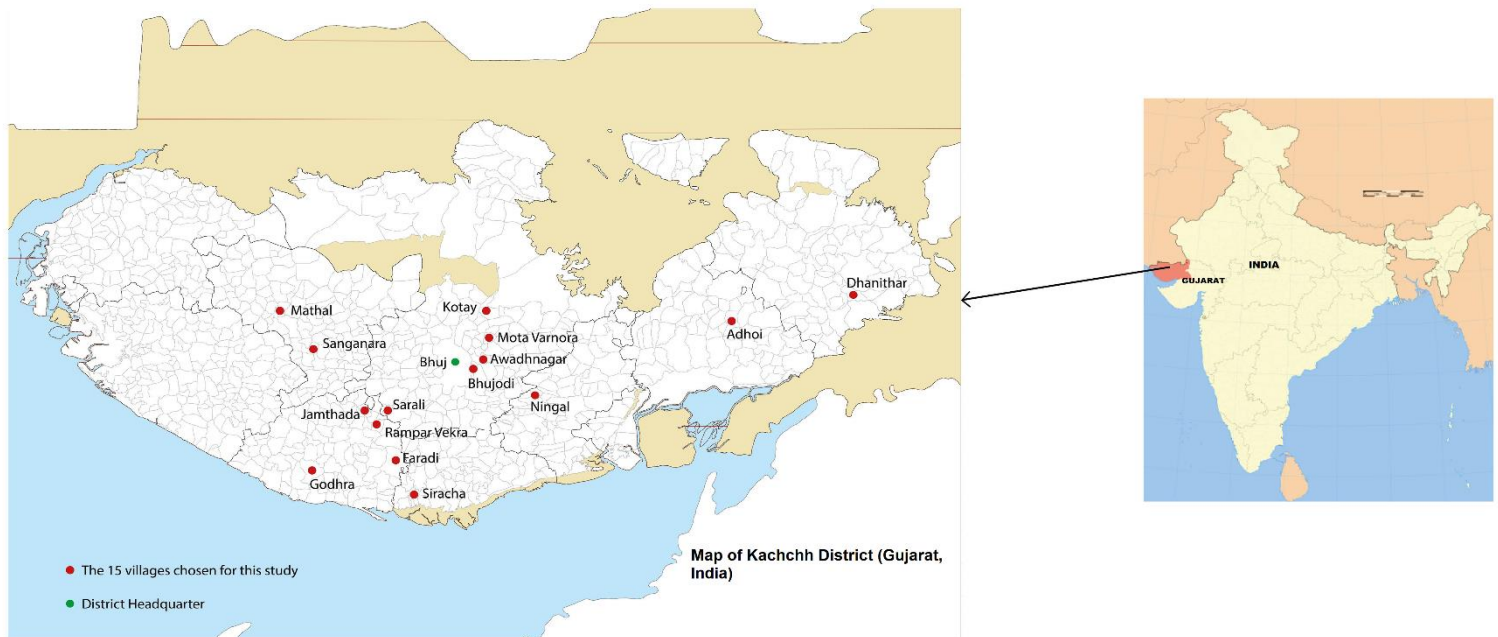
2.3 Limitations

The study has several limitations. One or them, more a part of the design than a 'limitation' (as in a weakness) per se, is that our access to

vankars was determined primarily by villages where Khamir had a presence or contacts, where prima facie transformation was going on, though this does not mean that we went only or predominantly to vankars who actually work with Khamir. As mentioned above, it was not possible to cover all the 62 villages; but we do have a broad picture of what is happening in the villages other than the 15 studied more intensively, based on the larger-scale surveys that have been carried out simultaneously which include visits to all these villages undertaken by Khamir's team along with core group of vankars, and a database developed using a mobile app and manual methods for all the weaver families of Kachchh. Certain aspects like the inter- and intra-community political dynamics could not be studied in any depth, and some cultural aspects that had initially been included for study were left out on the request of the community. The core team of weavers involved with the study from the start, consisted only of male, weaver entrepreneurs who Khamir was familiar with (though later on women and youth also were involved in some aspects). Language was occasionally a limiting factor when the community interaction teams did not have Kachchhi or Gujarati speaking people. We would have liked to do more interactions with non-vankar communities than we managed, to get a better understanding of the changes in relations between them and the vankars, and their perceptions of the transformation in the vankars' lives. Time was also limited given the short time window of a year, especially because, with the exception of one member of the team, all others were part time. It was also a limitation that the full-time team member did not know the local language, and was being exposed first time to the region and the craft.

⁵ Lyla Tyabji, expert on Indian crafts, one of the founders of Dastkar; and Carole Douglas, an Australian designer who has worked extensively in Kachchh.

3. Background



Map of Kachchh with the sample of 15 villages selected for the study highlighted

3.1 About Kachchh

Located in the western part of Gujarat state, Kachchh is the second largest district of the country, encompassing an area of 45,652 km². The district stretches covers about 24% of total geographical area of the state, and has become well-known as prominent place of history, culture and craft traditions. Prior to Independence, Kutch was one of about 370 constituent princely states of the Northern Division of Bombay Province. After Independence, it was kept as a centrally administered territory under a Chief Commissioner appointed by the Government of India. While other princely states of Gujarat mainland were integrated with Bombay State, Kachchh was called as 'Part C' State. On 1st November 1956, in accordance with the State Reorganisation Act, 1956, Kachchh was merged with Bombay State. On 1st May 1960, the present State of Gujarat was created partitioning the Bombay State in Accordance

with Bombay Reorganisation Act, 1960 and Kachchh was merged into Gujarat. Presently, the district is administered through 10 *talukas* (viz. Bhuj, Anjar, Mandvi, Mundra, Abdasa-Nalia, Lakhpat, Rapar, Bhachau Nakhatrana and Gandhidham). A total of 966 villages with a human population of about 21 lakhs (2.1 million, 2011 census) makes this one of India's most sparsely populated districts. Bhuj, Gandhidham, Rapar, Adipur, Bhachau, Anjar, Mandvi and Mundra are some of the main towns.

3.1.1 Geographical features

Out of Kachchh's total landmass, about 50% is under saline deserts of Great Rann of Kachchh (GRK, 17,500 km²) and Little Rann of Kachchh (LRK, 5,180 km²), occupying the northern and

eastern parts of the district, respectively (see map above). The southern and south-eastern part of the district share a boundary with Arabian Sea and Gulf of Kachchh. The north-eastern part of the district shares its boundary with the State of Rajasthan, including Thar Desert. The district is linked with the rest of Gujarat including the peninsula of Saurashtra, sharing its border with four districts viz. Banaskantha, Patan, Surendranagar and Rajkot. On the northern and western (coastal) sides, Kachchh also forms the international border with Pakistan.

Much of the Kachchh mainland and about 30% of the district's total area is under hills and undulating plains, including a long hill range traversing east-west direction commonly called as 'Central Bhuj Ridge'. Kala Dungar (458 msl) and Dhinodar (388 msl) are the two highest peaks of the district. The coastal plains occur mainly in the south of Kachchh's mainland, which are extensively used for agriculture practices. The littoral plains occur in the Kachchh mainland, along the Arabian Sea and Gulf of Kachchh. Sediments brought by the tributaries of Indus and Saraswati river systems built the deltaic plain to the west of Kachchh mainland. Raised mud flats occur especially along the northern margin of the Kachchh mainland and include the famous saline flatland of 'Banni' grasslands. Such raised mudflats are also extended within the Ranns. The GRK and LRK are the remnants of two extended arms of the Arabian Sea. It is believed that in pre-historic times, these areas were under the Arabian Sea and the Kachchh mainland was an island, surrounded by present day Arabian Sea, Gulf of Kachchh and Great and Little Rann of Kachchh, forming the shape of a tortoise (Kachhua in Hindi and Kachbo in Kachchhi; hence the region's name). This island was also known as the Kachchhdweep or Kachchhbet, both names bearing resemblance to its present name.

Local people, based on their knowledge of physical, social and cultural aspects, also

traditionally differentiate between landscapes that may or may not form distinct land units. Some of these traditionally identified landscapes include Pachchham and Khadir bets (islands), Bela, Wagad, Pranthal, Powerpatti, Garda, and Ahirpatti.

Kachchh falls in the arid tracts of the country, with an arid-coastal climate. It experiences extremes of weather conditions, with three seasons, viz. winter, summer and monsoon. The winter season lasts usually from the middle of November to the end of February with January being the coldest month having an average minimum temperature of 4.6oC. However, mercury seldom drops below the freezing point. Summer starts from March and continues till June end, with the maximum temperature ranging between 39 to 45oC. The monsoon is between July and September. The average annual precipitation is 366 mm, which on an average fall within 13 rainy days. The variation in the timing and quantity of rainfall is very high, and it increases from west to east. Winds are generally moderate to high with an annual average speed of 11.3 km/h. Due to high temperature and wind speed; the evapo-transpiration rates are very high i.e. about 2.25 meter of water evaporates in a year. According to the Thornwhaite Index of Aridity, the district falls under arid-to semi-arid condition characterized by high aridity (*above 40%*), indicating significant deficiency of soil moisture.

Within India's biogeographic classification, Kachchh Desert is a biotic province (3A within the larger biogeographic zone of the Indian Desert (Rodgers and Panwar, 1988). It consists of a mosaic of three major physiographical regions viz. (a) saline flats of Ranns and Banni (b) coastal regions and (c) mainland of Kachchh. Due to geographical situation and prevailing physio-climatic conditions, the following major natural habitats can be delineated in Kachchh:

- Saline marsh lands – mainly located in Great and Little Rann of Kachchh.
- Grasslands and savanna- mainly located in Banni and part of Abdasa & Lakhpat talukas
- Thorn-scrub forests – mainly located in Nakhatrana, and Lakhapat taluka near Narayan Sarovar.
- Seasonal wetlands – mainly located in parts of Banni and the Ranns.
- Mangroves- mainly located in Kori Creek and near Jakahu
- Coastal marine system- mainly include the areas in and around Gulf of Kachchh

Of above habitats, the two Ranns of Kachchh comprise possibly the largest saline and marshy tracts in the world. They have a unique landscape in terms of flat topography, annual water inundation pattern, high salinity, barrenness and many 'bets' or islands of slightly raised isolated lands with less salinity supporting some xerophytic vegetation. While GRK supports one of the largest congregations of breeding flamingos in the world (commonly known as Flamingo City), where about 100,000-200,000 birds lay their eggs, the LRK is quite rich in biodiversity and is famous for supporting the last remaining population of the Asiatic wild ass.

3.1.2 Cultural and linguistic features

Kachchhi is the district's native language, along with a large number of people also conversing in Gujarati and Sindhi. With the script of Kachchhi language (not, as commonly misunderstood, a dialect of Gujarati, and in fact much closer to Sindhi), having gone virtually extinct in terms of everyday use (there are some samples in the Kachchh Museum in Bhuj), the language is often written in Gujarati script. Since Gujarati is the medium of education in most schools the increased use of the language is inevitable.

The region of Kachchh is closely linked with the Delta of Kachchh, and Sindh and Barmer of Rajasthan. This region has many commonalities, with considerable influx of populations from central India in the distant past, and subsequent intermingling of cultures across many communities. Rainfed irrigated agriculture and animal husbandry have been the livelihood mainstays, judiciously using the arid zones and grasslands of the region. The strong pastoralist culture and ecological attributes, along with the heritage brought from central Asia, also created the environment for a flourishing of many crafts, ranging from textiles and footwear to earthenware and furniture. They apply their unique touch to numerous other skills such as architecture, black smithy, silver smithy etc. Apparel in particular has been very much a part of the identity of the various communities of Kachchh, each having distinct kinds and styles of clothing, using local raw materials sourced from the surrounding ecosystems. The changing needs also helped to create new product ranges and new innovations. The artistry and the skills reached great heights when they found right kind of patronage. There are around 16 types of crafts, and a similar diversity of embroidery types, making it one of the richest craft hub of not only India, but of Asia and world.

Currently, though, there is a little interaction amongst artisans of Kachchh, Sindh and other parts of Rajasthan. Before the massive earthquake of 2001, about 30% of population was dependent on handlooms and handicrafts; this has changed due to rapid industrialisation that followed the earthquake, but there is a significant population still dependent on the traditional crafts for their livelihoods. In some crafts a significant population still derives its livelihood, e.g. in the 350 tie-dye units occupying about 25,000 women. On the other end of the spectrum are crafts in sharp decline or stagnant, such as Namda and Kharad, which require serious efforts of revival and promotion.

3.2 About vankars and vanaat of Kachchh

3.2.1 On weavers and weaving

The art of weaving has more ancient roots in India with fossils of woven cloth being found in the excavations of Mohenjodaro that date back to beyond 3000 BC (for an overview of its current status, see Annexure 3). Evidence also suggests that residents of Sindh and Baluchistan areas had weaving skills dating back to 5000 BC making it the earliest record of textiles in the subcontinent. Kachchh is geographically linked to Sindh and has had a common history that still reflects in local skills, products and cultures of its communities. Handlooms have always been a developed and well-researched craft in India with each region presenting its unique specialty of loom structures, technique, styles and usage of raw materials. When, about 600 years back, the Meghwal community from Rajasthan migrated to Kachchh, they brought the art of handloom weaving using handspun yarn provided by Rabaris, a nomadic community of cattle herders.⁶

Weaving was a local art which provided Kachchhi communities with their traditional garments, blankets and fabrics that provided community identity. There are two popular stories that explain the migration of these weavers and the origin of the craft. According to one of these stories, the daughter of an affluent Rabari family in Rajasthan was married to a groom from Kachchh. As a part of the dowry, a weaver was also sent with the girl so

he could weave all the clothes the girl would need. The weaver's family grew and eventually formed a large community that spread to diverse settlements in Kachchh giving the region its rich weavers' community.

As per the second story the much-revered Shri Ramdev Pir who was on a pilgrimage from Rajasthan once visited Narayan Sarovar (on the Kori creek) in western Kachchh. Some followers who were goldsmiths in Faradi, Mandvi, built a temple in his honour and requested him to bring his kin from Marwar in Rajasthan for the upkeep of the temple. Shri Ramdev obliged and summoned the first settlement of the Meghwal community of weavers from Marwar to Kachchh. It then became a custom that whenever a new village was formed a family from the Meghwal weavers community was invited to settle down in order to cater to the weaving needs of the communities like other service providers. Thus, the weaver community is found scattered in almost all blocks of Kachchh. This Meghwal community, considered as scheduled caste, Harijan, or Dalit in official or civil society circles⁷, consists of four sub-castes namely Maheshwari, Marwada, Gurjara and Chaaran. Amongst these sub-castes, the Maheshwaris and Marwadadas excelled at weaving and leather work and greatly helped usher in the era of handloom weaving in Kachchh; weaving is now almost exclusively done by Marwadadas, with very few Maheshwari families still practicing it. Meghwals number about 2,25,000 in Kachchh; of these, about 70,000 are Marwadadas.

⁶ Though originally the Rabaris had depended solely on camels as a source of livelihood, they had in more recent times moved on to rearing goats, sheep, cows and buffalos as well.

⁷ Dalits or scheduled castes numbering about 300 million and with significant internal diversity and hierarchy, have historically been amongst India's most oppressed and marginalized people. Dominant Hindu caste society holds them to be the most 'impure' of people within the Hindu fold, so much so that they are not even one of the four varnas or main castes (hence 'outcaste'), and are considered 'untouchable' because any touch or even hints of touch could cause 'impurity' to other castes. Traditional occupations, considered the dirtiest or most impure, included skinning dead animals and leather work, manual scavenging including of human waste, sweeping and drain cleaning, etc. Significant affirmative state action including 'reservations' to jobs and educational institutions, social campaigns by government and civil society agencies, religious conversions to escape the shackles of Hindu casteism, and strident mobilization by Dalits themselves, has helped many Dalits to move out of their traditional condition, and significantly reduce aspects like untouchability. But for a majority, visible and invisible vestiges of marginalization and oppression continue. Vankars in Kachchh do not necessarily call themselves Dalit; several elders told us they feel this is denotes 'downtrodden', and they prefer being called Meghwal or vankar.

Box 1

Uniqueness of Kachchhi weave

Extra weft motifs distinguish Kachchhi textiles from other regions. Extra weft, as the term suggests, is when an extra yarn is introduced during weaving that loops between the warp & weft to embed the design into the fabric. In Kachchh extra weft designs are woven without external aids, the weaver visioning the design and translating that vision into the weave. While there is a common design repertoire within the region, weavers innovate with fiber, texture, color and layout to keep individual uniqueness. Earlier layouts were simple, now they are more complex and patterned, while retaining the traditional designs. Typical motifs and design layouts for products finished on the loom involve complex placements that are pictorial, where the weaver has to fully engage with the design and the math, lifting the warps threads by hand, and also create mirror images on both the selvages (fabric edges). The *charmuk*, *dungli*, *popti*, *vakiya* and *satkhani* are typical motifs.

Vankars here differentiate their weaving as the ability to weave very fine designs (using extra weft) in relatively coarser yarns. According to Premjibhai Siju, a Sant Kabir Awardee weaver, this is what distinguishes Kachchh from other handloom clusters.

Kachchhi weaving is known for its cohesive incorporation of eclectic traditional motifs and colours in heavy textiles like wool and thicker counts of cotton, and its unique weave (see Box 1). There are currently nearly a thousand weavers working in 62 villages in Kachchh; 987 of which practice the craft full time for a livelihood. Of this total number, about 600 are in the 15 villages covered under this study. Having started out as a small community, they have now spread their wings across the district be it in large clusters or smaller isolated pockets.

3.2.2 Spiritual beliefs, religious practises and values

"Craft is not just livelihood. It is cultural heritage; it is a way of life." – Aslam (Frater and Mondal, 2016)

Vankars do not relate to weaving as just a source of income but as a lifestyle. Analogies of

weaving are integrated through *bhajans* and *kirtans* into everyday philosophy and lives of the vankars. Poet Raviram in his bhajan 'Charkho' speaks about how the cycle of inhalation and exhalation is similar to a *charkha* in the human body. It is this *charkha* which lights the temple named human body. It is important to meditate on this charkha and the one who made it, only then will one walk on the spiritual path towards light. (Annexure4) Another poet named Ahmed has compared human life to cotton in his bhajan 'Kapas Jina Jina Tar'. Cotton transforms into tiny threads which is then later woven into a cloth which is useful for many people, and our life should be similar to the cotton. Each and every act of ours should be similar to those tiny threads which ultimately are of benefit to others. Only then our life will be worthwhile (Annexure 4). Thus, weaving has not just remained as a source of income but has integrally touched the lives of vankars and has guided them. Some vankars even regard weaving as a spiritual activity, a meditative practise.⁸

⁸ Personal Communication, Naranbhai Madan Siju, Bhujodi, Sept 2018; Personal communication, Rameshbhai M. Sanghvi, Bhuj, March 2017

Spiritual beliefs and/or religious practises often help in retaining the sense of belongingness of a *samaj*, a community. One distinguishing identity of the community is in a distinct form of the religious practise of *paatkori* (worship of an entity which is not supposed to possess a specific form, in *paatkori* this formless entity is symbolised through rituals) developed in the community as a response to their caste marginalization and prohibition to entering temples. This is practiced across the region by the Marwada community, and also among the Maheshwaris and Gurjars. This plays a strong role in unifying the community, as the entire village participates, there is a community feast and all night bhajans where elders from other villages also participate. *Paatkori* is even today playing a strong social function of keeping the community together, and even the youth who don't really understand the rituals participate in it. In the reyans held at Bhujodi and Jamthada

village, the young weavers said that while they do not understand the *Paatkori*, they all participate in the cooking, serving and the act of community togetherness. The *Paatkori* is a powerful ritual that represents the practise of the *Nijar dharma*⁹ of the vankars or the *Nirgun* tradition that worships a formless divinity symbolised by a lamp - '*Dhanibawa*' an energy or force which guides the universe.¹⁰

Ramdev Pir (not to be mistaken with the Hindu god Ram), a historical figure is respected and revered by many in the community. The belief is that Ramdev fought against untouchability and worked towards upliftment of the community by spreading the teachings of peace and wellbeing. He spread the *Nijar dharma* and worked towards making it easier to understand and more accessible to the common people. Today there are temples of Ramdev Pir all over Kachchh district where he is worshipped as the main deity of the community.



The Kachchh landscape with camel herd and herders

⁹ Nijar dharma believes in an entity that does not possess a specific form. It is considered to be omnipresent force which governs the entire universe.

¹⁰ Personal Communication, Naranbhai Madan Siju, Bhujodi, Sept 2018; Personal communication, Rameshbhai M. Sanghvi, Bhuj, March 2017



Pastoralist Maldharis with whom vankars shared a relationship of interdependence for livelihood



Vankar working on a loom



Indigenous and organically cultivated Kala cotton

Over a period of time, mainstream Hindu religious idols and deities have been assimilated into their belief and practises. The following metaphor underlines the significance of religion with weaving. *Khuta*, one of the most important parts of the loom which facilitates forward movement of the warp is called 'Ganesh', the god who signifies growth and prosperity. Weavers worship this component of the loom every day before starting the weaving process (Ksing and Singh, no date; Sachlos and Auguste, 2008). When the new loom is to be inserted into the ground, *aarti* (a ritual which represents salutation or reverence) is carried out. The wood is coated with *rakh* (ash) and worshipped.

The practise of weaving also follows the calendar of religious festivals and occasions, similar to other livelihoods such as farming. The vankars stop working on the looms one day before Diwali and on the Diwali night the custom of '*Meriya*' is observed. The cloth woven between two shawls is taken and is tied to a stick. They light up this torch '*Meriya*', on Diwali night and fix it in their field. The legend goes that when the Hindu God Ram was returning to Ayodhya after defeating his enemy Ravana and winning back Sita (Ram's wife), he was welcomed with fields filled with lighted torches. The vankars till today light up these special torches '*Meriya*' after dusk and fix it in their fields (Ksing and Singh, no date).

Every month on Krishnapaksh Beej (second day of the dark lunar phase) they do not work on their looms, but rather clean them and then perform the *puja*. People who believe in Ramdevji Pir go to the temple in the evening, meet up with everyone, make *prasad* or sweet dish and distribute it among the community. They read their holy books, including Ramayana and Mahabharata (Ksing and Singh, no date).

3.2.3 Evolution of inter-community economic relations

The evolution of community linkages can be traced back to the time of the Meghwal community migration from Rajasthan. As mentioned earlier, among the Meghwals, the Maheshwari and Marwada sub-castes excelled at weaving and leather work and facilitated the induction of handloom weaving in Kachchh. Though the Maheshwaris slowly moved on to other occupations, the Marwada weavers continue to practice their traditional weaving skills.

With the passage of time, the landless Marwadās developed associations with communities such as the Ahirs, the Rajputs and the Rabaris. The Marwadās depended on the Rabaris for the woollen fleece that was hand spun into yarn and then woven as fabric. Each weaver was linked to a group of Rabari families and they ensured that the entire production of the weavers was taken care of. The weaver was called Rakhiyo to that particular group of family and he was supposed to perform other tasks like playing musical instruments, singing bhajans at family occasions, etc. The Rakhiyo was the respected figure in associated Rabari families and his bhajans were inseparable parts of all occasions of the Rabari families. The weavers shared similar kind of ties with other communities like Ahir, Patel, Lohana, Jain etc.

The Ahir community provided them with an indigenous variety of cotton (Kala, which will feature repeatedly in this report) grown in their fields. The vankars wove this cotton into cloth and prepared head gear such as turbans and shoulder cloths that soon became marks of identity for every community that used them. Due to the region's harsh winters, they also developed the *dhabda* (woolen or cotton blanket) that is another characteristic of crafts from this region.

These fabrics were decorated by dyeing and tie-dyeing, skills that were undertaken by the Khatri/Muslim community. The women of the Rabari community further embellished these tie-dyed fabrics with intricate embroidery patterns. With the passage of time, distinct patterns and weaving styles emerged to signify the community of the wearer.

The levels of interdependence amongst these communities have diminished as India strived for modernization, and cheaper industrial clothing became available. With the weakening local market, weavers were forced to service more urban customers and began experimenting with different raw materials and techniques. On the other hand, the demand for Kachchhi elements such as the fine motifs, embroidery accents, tie-dye designs etc. in contemporary products helped retain some age-old relationships between various communities. Much of the focus of the production has however shifted to feeding external (national and global) demand.

A brief timeline of the changes taking place in the lives of vankars and in the craft of vanaat is presented in Box 2.

Box 2

A timeline of transformation amongst vankars of Kachchh

On the basis of discussions amongst the vankars (particularly the elders), and available records, key changes and transformations amongst the vankars since they migrated to Kachchh can be summarised as follows:

500– 600 years ago: the Meghwal community of Rajasthan migrated to Kachchh. The vankars in Kachchh are mostly Marwadas (and some Maheshwaris and Gurjars) from the Meghwal community, a traditionally oppressed community treated as ‘untouchables’ in the past. These landless Marwadas lived with the local pastoral Rabari community and other communities such as Ahirs, Darbars and Patels, with hereditary relations of economic exchange amongst them (Ksing and Singh, no date).

19th century till after independence: This was a period when weavers were most affected by introduction of cheap mill made textiles. Hand spun yarn and employment opportunities experienced a decline, leading to impoverishment. Interdependence amongst the communities mentioned above diminished as the country ‘modernised’. With the weakening local market, weavers were forced to service more urban customers and began experimenting with different raw materials and techniques.

1935 onwards: Introduction of Khadi (already advocated by Mahatma Gandhi on a visit in 1925 (Dholakia 2016); this was also an era of co-operatives or *Vankar Mandalis*, aimed at safeguarding the economic, social and cultural interests of this community. The first Khadi organisation Charkha Madhi, started in Gadshisha around 1940.

1947: Around 5000 - 5500 weavers came together as part of a Weavers Sammelan organised in presence of Shri Ravishankar Maharaj, an eminent Gandhian. The issues related to weavers particularly shortage of yarn were discussed.

1959: Introduction of the fly shuttle created scope for weaving fabric of wider width leading to increased production

Pre & post 1960: Earlier, Marwada and Maheshwari weavers wove for local communities. In 1960s, most Maheshwari families moved to other professions and villages. Kandla SEZ, a significant infrastructural facility, was set up.

1961–62: The practise of blending yarn began when softer merino wool of finer counts was introduced. It was introduced through Rajasthan Khadi board, which was importing merino wool at that time. It led to changes in weaving technique, which was earlier handling only coarse wool.

1965: An inroad into an urban market was made by the Sohan Sahakari Mandli. Prabhaben Shah of Sohan Sahakari Mandli introduced new product and design ideas to the weavers. Shawls were developed from the traditional *dhabda*, which was more suitable to urban markets

1970: Weavers in Kachchh began getting recognition for their skills through various National Awards.

1975 onwards: The Gujarat State Handicrafts and Handloom Development Corporation (GSH&HDC) commonly known as ‘the Nigam’ or ‘Garvi Gurjari’, offered state support to weavers, which boosted the craft production in villages.

1976: Acrylic, a synthetic, industrial yarn was found by Haja Suja Vankar in Delhi market. It offered a large range of pre-dyed colours to choose from & was cheaper. It quickly spread, and made Kutch shawls popular. Since then, acrylic yarn use rose considerably in Kachchh and the rest of India.

1980s: Meghwals who were earlier part-time weavers started practising weaving full time, making it a viable livelihood for many, with diversification into new products for external markets using mostly merino wool and acrylic, with a small portion using cotton (for bedcovers and home linen). Local (desi) cotton and desi wool lost favor due to less demand and price.

1991-92: There was a good volume of orders for shawls from Garvi Gurjari. Economic liberalisation policies were put into place, with diverse impacts on crafts. There was a spike in exports due to the economic liberalization – acrylic yarn shawls were exported mostly to the Middle East where they were converted into garments.

1995: Rayon was used marginally in shawl designs but replaced silk in mashru weaving, a smaller segment in Kachchh weaving.

1990s: Ludhiana powerloom units began to produce imitations of the Kachchh shawl in acrylic, and sold selling these for far cheaper than the handloom ones, both in local and distant markets.

Early 2000s: Weaving activity concentrated in villages like Bhujodi and Sarli. Sarli was more focused on wholesale and export while Bhujodi being close to Bhuj catered more to a tourist and retail market.

2001 earthquake: A massive earthquake devastated Kachchh; weavers suffered severe decline in the craft due to loss of loom, house, or other facilities; several weavers left to work in newly established industries.

2005: Kala Raksha Vidhyalaya (KRV), a design institute for rural artisans, was established.

2007 onwards: Khamir organised exhibitions telling the weavers' story, with the support, Dastkar, Delhi, which over 3 years brought a cross section of weavers together, focused on design and product diversity. These exhibitions created a buzz, brought in more buyers and expanded the weaver base for institutions like Fabindia.

Khamir initiated Kala cotton (indigenous variety, rainfed) value chain, from cultivation to fabric production, which later caught on the public imagination and became the centre of handloom revival. Upcycling of plastic waste for weaving was taken up and this centered around rural livelihood for women.

2009: In order to reduce impact of Ludhiana powerloom shawls that reproduced Kachchhi motifs and to protect their identity, vankars with Khamir's support promoted Kutch Weavers Association (KWA) to apply for Geographical Indication mark for the Kachchh shawl.

2014: Somaiya Kala Vidya (SKV), another design school for craftspersons was established, continuing the same curriculum of KRV. Courses include business and management studies

Present situation: Handloom weaving is thriving in some villages. Change in market profiles, national & international exhibitions, national and foreign tourism, fashion designers, and social media have increased demand, bring in robustness in the sector. New community based relationships have developed in order to cater to the external markets, including direct contact and / or creative collaborations. There is a higher degree of entrepreneurship. Earlier in 2000, there were only 10-12 entrepreneurs that invested in production and accessed local & distant markets; currently there are over 50.

3.3 The conflict: decline of vanaat

The ‘conflict’¹¹ that forms the focus of this study relates to the economic and social distress and discrimination that vankars as a whole were facing, particularly in the early years of the 21st century. A series of changes in the larger economic and social milieu that Kachchh was part of, including the rise of industrial cloth production flooding the market with cheap products (e.g. shawls made on power looms in Ludhiana, imitating Kachchhi designs), alterations in habits and tastes amongst communities that vankars made cloth for (and their inability to buy the more expensive newer products made by vankar scattering to external markets), reduction in availability of traditional yarns (especially sheep wool), and the intervention of government and civil society agencies that attempted to link weaving with external markets, were already changing the nature of how (and for what) vankars were using their craft in the last couple of decades of the 20th century. A devastating earthquake in 2001 caused severe loss of productive capacity (literally, damaging looms across hundreds of households) as also markets. At the same time, newer job opportunities arose, for instance in industries being set up by the government or private sector, or as labour in the middle East. On its own, already somewhat on the economic margins of society, as also because of their marginalisation as *dalits*¹², the vankar community found it hard to recover. A number of factors began to turn the tide from about 2005-06. This included the intervention of Khamir, set up with the mandate of helping in revival and sustenance of Kachchh’s craft, to try to re-establish relevant economic value chains. This was done in particular through the revival of production based on the indigenous (and organically cultivated) Kala cotton, as part of their objective of facilitating the regeneration

and sustainability of crafts and craft-based livelihoods in Kachchh. It also included a renewed consumer interest in handwoven cloth and marketing opportunities in the Kachchh desert festival, exhibitions and markets in India’s big cities and in Europe, interventions by artisanal craft schools (Kala Raksha Vidhyalaya and Somaiya Kala Vidya in Kachchh & The Handloom School at Maheshwar, Madhya Pradesh)¹³ to help train young weavers in entrepreneurship or design innovation, the distribution of looms and other help by the government immediately after the earthquake (said by vankars to be a relatively minor factor), and other such enablers. Handloom weaving has revived in a significant way in the last decade or so, transforming the lives of at least a part of the vankar community.

Amongst the fundamental structural aspects that lay at the base of the ‘conflict’ situation described above, are an economic system that has marginalised vankars (including their skills, knowledge, and products) as producers, and a social system (casteism) that has for long relegated them to the bottom-most position on the ladder of status. Within the vankars too, there are structural issues like patriarchy and masculinity that marginalise women, and generational inequities with youth having little say in community matters. There is finally the issue of the distance between weaving and nature. It was perhaps never a very strong *direct* relationship (as for instance would have been the case for pastoralists), but many decades back when wool from local sheep and camels, dependent on local ecosystems, was the main yarn, and there was perhaps some amount of use of natural dyes from local plants, the relationship is likely to have been stronger.

¹¹ We are here using a broad definition of the term ‘conflict’ to refer not only to particular cases of projects and processes that threaten survival and livelihoods (as predominantly used in the ACKnowl-EJ project emanating from the EJ Atlas, www.ejatlans.org), but also to background structural processes of impoverishment, discrimination, oppression, and marginalization.

¹² Noting again that vankars in Kachchh do not necessarily call themselves Dalit; several elders told us they feel this is denotes ‘downtrodden’, and they prefer being called Meghwal or vankar. See also footnote 6

¹³ <http://Kala-raksha-vidhyalaya.org>; <http://somaiya-Kalavidya.org>; <http://thehandloomschool.org>; hereafter we refer to these collectively as ‘artisanal craft schools’.

4. The Transformation

The revival of vanaat has had ramifications in various spheres of the life of vankars. A simple overview of the transformations taking place is given in Figure 2; each of these is explained in the sections below.

4.1 Economic transformations

4.1.1 Broader economic history

The handloom sector is one of the largest informal or (largely) unorganized economic activities in India, a substantial part of the crafts sector that is secondly only to agriculture.¹⁴ It requires minimal capital, has a low carbon footprint, is amenable to small lot production and is conducive for people's innovation. Weaving and allied activities provide employment as traditional livelihood across the country for over 43 lakh weavers¹⁵, with intergenerational transmission of skills.

The last few decades have seen a decline in this sector¹⁶. Competition from power loom & mill

sector, constraints in accessing credit and changing markets have been main contributors for the decline, resulting in next generation weavers aspiring for urban jobs and viewing handloom as unviable & unfashionable. This decline adds to the general perception of handloom being unsustainable and a sunset industry. Traditional craft practices are not acknowledged as knowledge, skill or as viable and sustainable livelihood options. As mentioned above, this general decline had its own particular reflection and flavour in Kachchh, affecting hundreds of families.

In the last 15-odd years, due to various initiatives and interventions, there has been a robust strengthening in craft practices in certain villages, especially in the 15 villages selected for this study that has led to a positive trajectory of growth and income for artisans. This robustness is reflected in practice, product, markets accessed, and in young weavers continuing with traditional skills for livelihood. Changing markets have caused shifts in raw material and product,

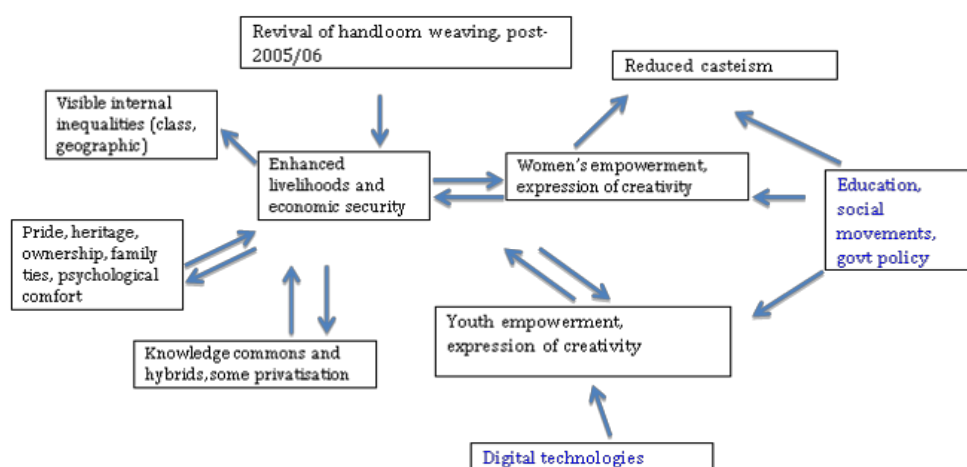


Figure 2: Multi-dimensional transformations in lives of vankars as a result of revival of vanaat (the arrows represent direction of influence)

¹⁴ <http://handlooms.nic.in/writereaddata/2486.pdf>

¹⁵ <http://handlooms.nic.in/writereaddata/2486.pdf>

¹⁶ 2nd handloom census (1995-6) recorded 65.5 lakh weavers and allied workers - <http://handlooms.nic.in/writereaddata/2486.pdf>

moving away from local wool based traditional products to working with other fibers especially cotton, with production catering to urban & international markets. Importantly, this does not necessarily reflect in other villages within the district or in most clusters across the country.

4.1.2 Present economic situation

The revival of vanaat and its various economic impacts can be seen in many manifestations, both positive and negative from the point of view of justice, equity, and sustainability. As recently as 2005-6 there were only six to seven weaver entrepreneurs in the district along with eight traders. These entrepreneurs & traders invested in production and provided work & accessed markets directly. Acrylic and merino products were sold only in winter & hence required capacity for holding stocks. With the introduction of cotton, there was year-round market requirements. This combined with income stabilization created the right ecosystem for entrepreneurship. Back of envelope calculations estimate the current total annual turnover of the weaving sector in the district at 40 crore (400 million) rupees. It is a four-tiered system of enterprise with weaver entrepreneurs, independent weavers, job worker and weavers who shift between job work & accessing markets independently. The eight traders still continue trading in acrylic shawls. Wages paid by these traders are minimal, compared to wages paid by weaver entrepreneurs. Khamir, when initiating Kala cotton value chain started working with weavers across these 15 villages, identifying marginalized families to take up weaving Kala. Income Levels

Weaving income levels in these 15 villages are much higher than the rest of Kachchh. This can be attributed to design, fiber and product. In Kotay village, Shamji Vankar's monthly turnover is Rs 70-80000, with estimated profits to be Rs 35-40000. Young weaver entrepreneurs earn

between Rs 25- 30000 while job workers earn 10-12000 monthly. In Siracha village, where the weavers are slowly coming back to weaving, pre-earthquake, weaving acrylic shawls fetched them Rs 35 for a shawl (2.5 meters); now they are paid Rs 150 / shawl, with income averaging between Rs 12000 to Rs 13000 per month. In Jamthada, weavers working on Kala cotton production for Khamir said they earned Rs 300 to Rs 350 per day. Khamir works with around 65 weavers in 22 villages across Kachchh¹⁷. Average earning for 7 to 8 hour work day for the work Khamir commissions, would yield Rs 9000 per month, though it can go up to Rs 18000 if the weaver significantly increases work hours¹⁸. Khamir computes weaving rates that ensure daily wage of Rs 500 / family (Rs 300 for weaving & Rs 200 for pre loom work). This has impacted the region, with other players (buyers, weaver entrepreneurs, other local initiatives) having to match these wage levels.

With change of fiber and product, time spent on pre-loom process has increased. Pre-loom process of warping is done by women, wage for this is not differentiated from but is included with weaving charges. The table in Annexure 5 indicates wages for different processes / products and the time taken for each process. While preloom and weaving productivity is much higher in acrylic / merino, per meter wage has increased over 70% with Kala cotton. Average monthly income for weaving acrylic shawls was approximately Rs 6000 per family in the early 2000s. Current earnings for this product are around Rs 10,000 to Rs 12,000. Weavers weaving Kala cotton average between Rs 12000 to Rs 15000 per month if they maintain a 10 hour work time. Job workers weaving for weaver entrepreneurs earn between 9000 to Rs 11,000 monthly. It is estimated that independent weavers average Rs 30,000 monthly earnings; a few entrepreneurs are earning much higher, from about Rs. 50 lakhs to 6-7 who are making over a crore (10 million), one of them 7 crores, annually.¹⁹

¹⁷ These are figures as of April 2019

¹⁸ Ramjibhai, a 65 year old weaver at Kukma village weaves 50 meters/ month for Khamir and averages Rs 6000, per month. He is single and has no one to help with pre loom work. He is the lowest earning weaver among weavers taking up work for Khamir.

¹⁹ Meeting of core team, Khamir, September 14, 2018

Table 1: Current (2018-19) levels of daily Income of varied livelihood options²⁰

| Levels of Daily income / wage | |
|---|--------------------|
| Income from job work (other than Khamir) / weaving acrylic (piece rate) | Rs 200 – 250 |
| Income from job work with Khamir (piece rate) | Rs 300 – 350 / day |
| Average daily wage rate for construction | Rs 225 |
| Average daily wage rate for farm work (seasonal) | Rs 200 – Rs 250 |
| Average daily wage at industries (12 hour work day) | Rs. 350 |

The above can be compared to other livelihoods in the region (Table 1)

The main impact of Khamir's intervention has been overall increase in weaving wage levels in these 15 villages. However, there is no impact with weavers who weave acrylic or merino shawls and access markets directly or through traders.

In these 15 villages, most weavers articulate weaving as viable livelihood. The more travelled weavers also are aware that their earnings are quite high, compared to some of the weavers in other regions of India. The young weavers express this and attribute different reasons. Some excerpts: "Here (Kachchh) only vankars weave - when I went to Maheshwar, there were many communities who were weavers (Hindu, Muslims, etc).... Here (Kachchh) is tight and just one community hence less population...that's why Kachchh is better than other places"²⁰. "The economic situation in different parts of the country of a weaver is much worse than here. Here, we are more (and directly) connected to the market...we have more awareness...we also get more tourists".²²

Weaving is seen as viable livelihood with increased level in income. This increased levels of 'prosperity' is seen in the slow but definite redeployment of looms in many villages, the

return of youth to weaving, and lifestyle choices and living conditions (more or larger cement-concrete houses, gadgets, and household amenities, compared to weavers whose lives have not transformed). In Adhoi increased level of income was evident. The houses were all pukka, some even 'modern'. Almost all the young weavers had smartphones, most of them had paid off their debts, had proper work sheds, bikes, etc. Prakash Bijal Vankar of Adhoi mentioned he had bought a 'settie palang', a smartphone and his final desire was to buy a car. He had put his son into an English medium school that he saw as a sign of progress²³. However, in some instances like Ghanithar, there is no evidence of any prosperity where only one person had a smartphone, houses and loom shed was still *kaccha*²⁴. Even within villages where weaving is seen as robust, there are visible signs of economic vulnerability with some weavers who take up job work for weaver entrepreneurs.

Economic migration: in & out of weaving

*"Post-earthquake, all 43 vankar families were given looms by the state government. After the arrival of cheap Ludhiana shawls in the market, the demand for our shawls has decreased. People would get back to weaving if they have work here"*²⁵.

²⁰ Meeting of women, Jamthada village, March 19, 2018

²¹ Personal communication, Vinod Bhanji Vankar, Kotay village, March 15, 2018

²² Meeting of youth, Khamir, June 18, 2018; Personal communication, Mansukh Kanji Karsan, Kotay village, March 15, 2018

²³ Personal communication, Prakash Bijal Vankar, Adhoi village, Feb 25, 2018

²⁴ Group meeting, Dhanithar village, August 7, 2017

²⁵ Group meeting, Bhadali village, October 9, 2017

Within the overall scenario of a move away from weaving, especially by the younger generation, there are also numerous stories of people staying on or even coming back after having tried other occupations including construction, factory work, and other 'majoori'. As a new phenomenon, women including young ones are taking up weaving. So what retains a weaver in weaving and what brings back a weaver to this traditional livelihood?

Culturally, being together seems to be an important element of the vankars' familial code. So work that takes male members away from the village is only reluctantly explored (though not necessarily amongst all the youth). Proximity to the village and family is an important decider. Men and women from vankar families in Siracha worked in the nearby factories since 2005, returned to weaving in 2017/18; when factories started downsizing, or youth were frustrated at the bondage like conditions in some factories, weaving seemed a more viable livelihood²⁶.

In Adhoi, there were attempts at varied livelihood explorations, including bringing in powerlooms. One of the young weavers come back to weaving after attempting several options - driving a tractor, working as a videographer, and taking up odd jobs in the city. His reason for restarting weaving and staying with it, was that it gave him more space for being creative. Out of the 120 families in Adhoi, 50 to 60 weavers practice traditional livelihoods²⁷. Preference for the known and familiar and for home-based work done at one's own time rather than physical 'majoori' where time is fixed and the worker is subject to someone else's command, seemed to be main motivators.

Faradi village has 11 weavers currently practicing the craft. Their families had earlier taken up farming; with insufficient earnings in farming,

they took up masonry work. Recently, there has been a shift back to weaving. Weavers were sent to different places to learn weaving since it was seen to be more viable than other work²⁸. In Kotay village, weavers started weaving 5 to 6 years after Vijayaben Kotak started working at Hastakala Nigam (a government institution) in the 1970s. They were given continuous orders for acrylic and merino shawls. Post earthquake, there were 42 looms, which has now increased to over 50 looms. Around 10 -12 weavers are accessing markets independently²⁹. In Mota Varnora village, a few young weavers migrated to the Middle East to work as masons and construction workers. Recently they have moved back and have started weaving. Weaving is work done at home, and involves less physical work³⁰. In Jamthada, there is an increase of more than 20 women who have started weaving. With the social restrictions on women still prevalent, married women work on the loom behind drawn curtains³¹. In Bhujodi, some youth have come back to weaving after trying out work in the nearby factories. The Ashapura factory, located close to Bhujodi village pays Rs 10000 per month, but the work hours are long and untimely (4 pm to midnight). Around 30 to 40 vankars work at the factory and weave during leisure time. They are reconsidering factory employment, with a view to taking up weaving full time³². Purushotam Siju worked for about a year in a local manufacturing unit, returned to weaving as a job worker and now is a weaver entrepreneur. In Godhra, some of the Maheshwari weavers have started coming back to weaving³³; this reverse migration, according to them, offers 'respectable' livelihoods. In Siracha, Adani Industries laid off a number of workers; they have now come back to weaving, and are happier. As they say: "work in industry is limited only till there is strength in your body".

²⁶ Group meeting, Siracha village, March 16, 2018

²⁷ Group meeting, Adhoi village, February 25, 2018

²⁸ Group meeting, Faradi village, March 2018

²⁹ Group meeting, Kotay village, March 2018

³⁰ Group meeting, Mota Varnoravillage, July 2018

³¹ Meeting of women, Jamthada village, March 25, 2018

³² Meeting of youth, Khamir, June 13, 2018

³³ Group meeting, Godhra village, December 21, 2017

Employment stability

With employment stabilizing, incomes also have stabilized. Debts have been paid off, houses built or repaired and with that kind of stability, young weavers are also experimenting with accessing markets on their own.

However, some degree of fragility or insecurity may also have come in due to the significant shift away from local exchange and markets to a dependence on external (national and global) markets for the sale of the vankar's products. Local markets and exchange still exist (e.g. in Ghanithar village) but form a small percentage. National & international tourists form a large retail base in the winter months when tourism starts. However, bulk of production is sold in various metros, either directly through exhibitions, resellers, wholesalers and designers.

Weaving & farming

Overall in Kachchh, many weaver families have other livelihoods (farming, industrial jobs, construction labour, etc), with variations in which one is the mainstay. However, in the 15 villages studied, only in a couple of villages (Ghanithar, Kotay), dual livelihoods substantially supplement (or are supplemented by) weaving. In Ghanithar, the weavers said that they earn much more from farming than weaving. Annual earnings from farming are estimated at Rs 70,000³⁴. After keeping part of the produce for personal consumption, the rest is sold.

In Kotay, where weavers own farms, income from agriculture is estimated at Rs 60000 to 70000 when rains are poor and in a good monsoon year upto Rs 1.5 lakhs (150,000). When asked, the weavers of Kotay said they use the earnings from weaving towards working capital and to travel to Bhuj. In the rest of the villages, weavers did not take up farm work to supplement weaving income.

Ownership of production (including means of production)

Most weaver families own pre-loom warping stand and the loom, which is located within their homes. Less than 1% of the weavers go to work on looms owned by weaver entrepreneurs, e.g. Shyamji Vishram Siju's work shed in Bhujodi has 4 looms, and in Adhoi this arrangement exists with weaver entrepreneurs who supply traditional products to local traders.

Weaving with acrylic had interesting outcomes - while it brought back ownership of production to the weaver, production catered to low end markets, with fierce competition from powerloom products (acrylic shawls woven on powerlooms in Punjab and sold in Kachchh by local traders³⁵). This brought down the marketability, with a spiralling downtrend both for product and weaver. Given the seasonality of wool and related fibers, weavers who had capital could invest in, accumulate and retain stocks, with sales in winter to both local and external markets. Shift to cotton in the mid-2000s opened up possibilities of year round sales.

Kala cotton, while stabilizing incomes may have created another source of inequality. With acrylic, weavers had control over production; with Kala cotton, which is harder to handle and more expensive to buy/stock yarn, the weavers have become mostly job workers. Kala cotton production ownership rests mostly with weaver entrepreneurs or the new initiatives and entrepreneurs like Khamir, Kachch ji Chaap, etc³⁶. According to some weavers, "due to increase in Kala cotton and reduced demand for acrylic, the market is reducing for weavers who cannot switch to / access Kala cotton. ... they do not have enough working capital to start production of Kala cotton as it is more expensive compared to acrylic.." ³⁷

The fluctuating raw material usage has led to increased working capital requirements. Traditional practice was to weave the handspun

³⁴ Group meeting, Ghanithar village, April 11, 2018

³⁵ Impact of Acrylic shawls in Ludhiana was a major point in the transformation. Group meeting, Bhadali village, October 9, 2019

³⁶ Siracha weavers expressed that weaving acrylic was easier on the pre loom (hence very possible for the women) and that to start accessing markets with Kala cotton would be difficult as inputs required are much higher. Group meeting, Siracha village, March 16, 2018

³⁷ Group meeting, Kotay village, November 7, 2017

yarns provided by the Rabaris. With change of fiber to merino / acrylic and now Kala cotton, and supplying to distant markets, working capital requirements have increased significantly.

Leveraging new & traditional skills, techniques and technologies for higher returns

Recent times have seen a revival of hand spinning, especially with sheep wool. This is driven more by the market, rather than an intent to revive technique and livelihoods.

Dyeing as a technique has not been part of the Kachchh weavers' traditional skill sets. The traditional colour palette was around local animal fibers available the region - shades of white, grey, brown and black were used innovatively. Community identity and status determined color, design and motif on fabric. The local communities got their yardage from the weavers and then approached the local Khattris for surface ornamentation. Now with shifting customer base and pre-ordered production, color plays an important role. While traditional designs are still tie dyed by a few Khattris, they are not equipped to or do not take dyeing of a wider color palette. So weavers have had to experiment with, learn and practice dyeing. Chemical dyes and natural dyes are used currently across products. Khamir has built local capacity for natural dyes, both with dyeing workshops and setting up a dye unit with a weaver entrepreneur. The local design schools also train in natural dyes. Some weavers access dye units in Ahmedabad for specific colors and guaranteed quality performance, while other weavers make cloth with dyed yarn accessed from the local market.

There have been innovations in warping and sizing. In Godhra, with increased demand and production, sectional beam warping is done. Innovations in sizing (Kotay & Siracha) have increased production and decreased time and dependency on family members. Supply of yarn

in cone form has fast forwarded this innovation in sizing.

Keeping complex extra weft techniques and motifs as an integral element of design, thinking through and being engaged with the design as it were, slowing down the production by introducing more of the extra weft has been a strategy that has worked well in these villages, especially for the weaver entrepreneurs. Extra weft woven without using either the traditionaljala or the more 'efficient' jacquards, offers the opportunity for small lot production and retains flexibility of design and product that is conducive for individual entrepreneurship. Understanding and accessing a certain market niche, which appreciates and is willing to pay has been effective. Switching between different fibers has been the mainstay of accessing different market sections.

Traditional ways of selling, which includes putting together a collection and waiting to sell in a particular season, comes in play now with young weavers not in a hurry to sell and monetize their production. For instance, Mansukh Kanji Karsan of Kotay, puts together a collection before taking it to an exhibition). Weavers who need to immediately monetize their production are the job workers, who take products to the weaver entrepreneurs; these weavers form a larger population than weaver entrepreneurs.

Weavers, especially young weavers, leverage internet and social media like Facebook and WhatsApp to access markets and to be touch with clients. Vankar Shyamji Ramji of Kotay, who sells online says it is more profitable to access markets directly as there are no traders in between. "Some young weavers directly deal with the market, including designers – even orders from Europe on Instagram and make payment using Paypal – the new technology is helpful"³⁸.

³⁸ Group meeting, Kotay village, November 7, 2017

Differential geographical access

Geographical proximity³⁹ to major market centres seems to be one significant factor in which villages achieve economic transformation, or which ones do it faster. With the exception of Adhoi and Ghanithar, the other villages displaying such transformation are situated in a 40 to 50 km radius around Bhuj, where also institutions like Khamir have been active. The premise is that geographical location is a reason that contributes to robustness. In villages that are distant, with difficulty of approach and accessibility, weaving is a secondary livelihood or if primary, and weavers work on job work basis. (eg. Mathal, Jamthada).

The general surveys referred to above (beyond the 15 villages chosen for focused study) strongly indicate that distress continues amongst vankars of villages which do not have these advantages. In discussion with vankar elders, there appeared to be clear recognition of these inequities; one suggestion that came up was that entrepreneurs should focus more on giving Kala cotton and other work to weavers in such 'remote' areas, and also enable greater innovation/diversity in acrylic, to reduce at least some geographical inequities. They also pointed to the fact that settlements like Bhujodi had a greater critical mass of vankars, who were able to stand up to caste oppression and economic marginalisation more than in villages where vankar families are a tiny minority.

Despite the overall revival in the villages studied, the earlier decline and loss of livelihoods has not yet been made up. For instance, in Sarli, looms decreased from 70 in the pre-earthquake period to about 25-30 after the quake, and are now upto 45; in Adhoi, 120 before the quake, down to 50-60 after that, and now up to about 100. Weaver entrepreneurs who supplied to local communities and markets have scaled down. Vasubhai Lakhmanbhai Vankar, a weaver entrepreneur in Adhoi, has scaled down from 25

looms pre earthquake to 6 looms currently. With cheaper machine woven fabrics flooding Anjar market, weaving in Adhoi for local markets has reduced.

Within the selected villages, Adhoi, Ghanithar, Siracha, Faradi and Jamthada are not known outside Kachchh. Within this group of villages, Adhoi was a centralized market for the communities of eastern Kachchh. Powerlooms were introduced here to cope with increased local demand. However, mill made polyester was the preferred choice soon, and this was procured from Anjar traders. With the markets shifting to Anjar, there was a decline. Weaving as livelihood in Adhoi has recently become more robust with Khamir's intervention, in particular introduction of Kala cotton, with higher and regular wage stabilized weaver income. Now weavers are planning to also access markets directly.

In Faradi, talking about the switch back to weaving, weavers expressed angst about accessing sustainable markets. "Acrylic market went down and we have no income. We stopped weaving for a while and again started working as a job worker. Later, we started Kala cotton but the yarn we got was bad so we left that too. Also because Kala cotton needs more labour and man power. Acrylic was easier for women also. To get independent also needs money. Garvi Gurjari gave orders to only 'big' weavers."⁴⁰

Jamthada has mostly remained a village of job workers, either for Sarali or Bhujodi weaver entrepreneurs. Bhujodi and Sarali have been well known for weaving both within and outside the district. In recent few years, Adhoi and Kotay have recently gained prominence. In Kotay village, weavers expressed that distance from the market is directly proportional to the profits from weaving; some weavers here overcome distances by leveraging Internet and social media, in spite of low network connectivity⁴¹.

In some villages like Ghanithar, weavers seemed to be balancing their two traditional occupations

³⁹ In 1990s, Vadva Kanya village in Nakathrana was a robust weaving village of 80-100 looms. Around earthquake it got reduced to 20 looms. The reason for the decline of weaving practice, says Lada Rambhai, is the distance from Bhuj, decline of market, shrinkage of living and working spaces, no access to affordable financial instruments, no government support, and increasing raw material/set up cost.... Currently 15-20 families work as farm labor.

⁴⁰ Group meeting, Faradi village, March 16, 2018

⁴¹ Group meeting, Kotay village, March 16, 2018

of weaving and farming⁴². Income from farming is regular and much more than from weaving. Weaving is only occasional as it is order based. For the older generation, weaving was easier than farming, weaving gave them more freedom. Some weavers also quit weaving due to the lack of market, e.g. Ramesh Bachhu Bhura Vankar, though he is a skilled weaver.

Economic relations and attempts at cooperative functioning

In 1945, around 5000 weavers from Maheshwari and Marwara communities came together in a 'sammelan' in Bhuj. It was linked to India's freedom struggle. Weavers were not getting enough yarn as lot of raw material was being sent to mechanized weaving mills which were recently introduced⁴³.

A cooperative, Shree Bhujodi Sutar Oon Hath Vanat Sahakari Mandali Ltd was set up in 1954, with the mandate to help small artisans "develop their own business and to set up their own manufacturing unit".⁴⁴ This cooperative played very important role in history of weaving in Kachchh, with many of the community elders of Bhujodi participating actively in building this institution. Livelihood and welfare support was received from government. Land was allotted to build colony for the weavers. This institution lost its importance around 1990, mostly due to emergence of private entrepreneurs. After the 2001 earthquake KDC (Kutch District Cooperative Bank) ceased the operations of this cooperative as it had defaulted on loans. Recently there has been an attempt to revive this institution (Mandali) by a few weavers in Bhujodi, who have paid the bank dues to enable it to restart. In February 2018, they regrouped to apply for a Craft Business Development Centre⁴⁵.

The cooperative's mandate of helping small (mostly individual) enterprise, rather than coming together for collective value chain work (raw materials procurement, production, marketing, revenue sharing) as in the case of many other cooperatives or producer companies in India, could be an indication (or outcome) of the inherent Kachchh entrepreneurial spirit that seeks individual rather than cooperative work.

In the eastern region of Kachchh, a combined mandali has been set up by the Marwara and the Maheshwari community, which is quite unique to the district. There was beti-deti vyavhaar (inter-marriage) among these two communities as well, which one does not see even now in the other regions. Social relations with the Rabaris and the Bharwads still continue⁴⁶.

However, recent challenges like influx of powerloom replicas flooding the market, GST, etc. have failed to bring them together, unlike in other parts of the country. We come back to this later when we examine 'Political transformations' (section 4.5).

There has been a strong tradition of patronage in the community, i.e. a patron who protects and ensures security for the weaker members of the community. This mindset has dovetailed into the master craftsperson system, where the weaver entrepreneur controls raw material, design and marketing while the weavers weave for wages. While this was very much the case till the early 2000s, the economic shifts that have happened since, have now resulted in far more complexity. Earlier there were four main kinds of people into vanaat, most of them part-time since vanaat was not the only occupation:

- a. The master artisan⁴⁷ supplying to both local and external markets
- b. The entrepreneur with limited capacity supplying to mainly local markets and master artisans.

⁴² Group meeting, Dhanithar village, February 24, 2018

⁴³ Meeting of core team, Khamir, August 17, 2017

⁴⁴ Craft Business Development Centre - Project report (Feb 2018) preamble of the Shree Bhujodi Sutar Oon Hathvanat Sahakari Mandali Ltd

⁴⁵ Email communication, Ghatit Laheru, April 30, 2018

⁴⁶ Group meeting, Adhoi village, February 25, 2018

⁴⁷ A term that appears to have come in with the advent of external markets and government awards to craftspersons, and has likely created its own power dynamics within the vankars (an aspect not studied here).

- c. The job worker weaver.
- d. The pre-loom preparatory workers, mostly women.

Now there is a more complex set, with both entrepreneurs and job workers being divided into part-time and full-time, semi-skilled and skilled; entrepreneurs using acrylic only and those using Kala sometimes mixed with other materials; weavers who are mainly supplying to external markets and others who continue to feed a (declining) local market: and amongst these a new set of young weavers and women some of whom have their own market connections.

Economic relations between weavers and other groups

Economic transactions intertwined with social values ensured the survival of livelihoods for centuries. These transactions included the element of 'patronage'.⁴⁸ In recent times with shifts in fibres and modes of production, advent of cheaper machine woven synthetic fabrics, traditional linkages and patronage relations have shifted. In most villages, especially where there has been significant economic progress, economic relations with other communities have ceased or have tended to become much weaker. Both communities seem to have taken this in their stride, though there is also some indication of either nostalgia or a desire to revive some form of the earlier relationship (e.g. in Bhadali village, see below). Production is for external markets rather than for traditional markets, though the latter have not stopped totally (as in the case of Ghanithar village, described below).

When offered a choice of cheaper, lighter fabrics, local communities for whom the weavers traditionally produced, stopped wearing the coarse, heavier local hand woven fabrics and started using powerloom and mill made lighter synthetic fabrics. This forced the weavers to produce for distant markets. Traditional

economic relations with Rabaris, farmers and other local communities have decreased quite significantly. The Rabaris who are the traditional 'masters' recognize that weavers are gaining economic affluence and the dependency patterns have broken down. The earlier social inequalities are slowly leveling out (see section 4.2 below)⁴⁹.

For their ritual textiles, especially for marriage ceremonies, Rabaris would buy fabric from the weaver and get it tie-dyed from Khatri of Bhadli village. In a conversation with a Rabari family, they explained that earlier each Rabari household or a group of households had an associated weaver. It was a barter system. In the last 2 to 3 decades, it became cheaper and more convenient to use mill made polyester fabrics, although the Rabaris who still travel with their herd wear khadi. Before, the Rabaris had more 'maal' (wool) but now since they do wage labor (majuri), they need to buy yarn from the market. The old relationship with vankars is therefore not feasible. At least some Rabaris expressed that they would like to revive it if possible; and some of the vankar elders also remarked that the re-establishment of some local exchange may be desirable⁵⁰.

The vankars of Mathak village had economic relationships with Ahirs and Rabaris. Ahirs did farming and since market demand for weaving was limited, vankars were involved in other village activities like playing drums in marriage and other social events, etc. The Ahirs gifted small land holdings, on which the vankars here started doing farming⁵¹.

Social relationships and networks between communities have broken within Kachchh but other kinds of relationships have been created somewhere else. These other relationships are market based. The elders seem to be worried about the community and the current changes⁵² including the way business is panning out now with high profit margins which do not respect the

⁴⁸ Personal communication, Sushma Iyengar, Khamir, August 17, 2017; she referred to the relationships between the Kutch maldharis and ajrakh printers as a typical example.

⁴⁹ Meeting of core team, Khamir, November 6, 2017

⁵⁰ Group meeting, Rabari family in Mota Varnora village, July 10, 2018; Meeting of coreteam, Khamir, January 8, 2019

⁵¹ Meeting of core team, Khamir, October 21, 2017

⁵² Group meeting, Bhujodi village, November 2, 2017; Personal communication, Vishram Valji Vankar, Bhujodi village, November 2, 2017

earlier norms of charging low margins so that inequality does not rise amongst vankars.

Exception to this is in the village of Ghanithar where the weavers and the local Barward and Rabari communities continue the economic transactions. Weavers here believe that some aspects of the relationship (especially regarding trade of clothes for ritualistic occasions) will continue⁵³. They continue to weave traditional tangaliya (a special weave of eastern Kachchh) although the frequency of orders has decreased; this is attributed to the preference of the younger generation for 'modern' attire.

In Adhoi, with the migration of the Khatris⁵⁴ to Anjar, the weavers now supply to traders who in turn get the value addition done. Earlier they would weave for the Rabari, Bharwad, Patel and the Jain community. 'Pheri' (wandering around with wares) sales have stopped a few years back since there are no local customers.

Economics have reversed certain relationships, with some weaver entrepreneurs, now giving work to other community women, especially the Rabaris⁵⁵. Earlier there was no direct relationship between the Khatris (dyers) and the weavers. Rabari women would pass on woven fabrics to the Khatris. Arab Rahim Khatri (Merit Award winner – 1971) of Bhadali was the first Khatri to start working directly with the weavers. Weavers started working with Khatris directly around 1970s thus changing the relationship dynamics. Weavers who started receiving national awards came to prominence and started interacting with markets. Bhadali and Moti Virani emerged as main *bandhani* centres. Tie dyed shawls continued to remain mainstay product of Kachchh weaving for many years.

Income & wealth distribution within vankars

There is noticeable inequality between the independent weaver and a job worker. For

example, while entrepreneurs earn around an average of Rs. 35000 to Rs 40000 per month while weavers undertaking job work weaving for Khamir get an average of Rs 12000 to Rs 15000 month, while others get around Rs. 10,000 to 12000 per month⁵⁶. Some 'redistribution' by individual vankars, as donations and loans, appears to be happening, but there is no collective effort at trying to address inequalities.

Now most weavers, who take up job work, can choose between weaver entrepreneurs, organizations and external buyers. Weavers, who still work as job workers, are keeping options open to shift between various players. Even after income stabilization, some of these weavers stay as job workers, since they do understand that with mobility comes risk.

Weaver entrepreneurs do not look toward external funding or loans, and work within their holding capacity.

"We are not like Bhujodi, which is close to Bhuj but we have better 'Kala'. There they only made shawls and dhabdas, then Srujan came there. Increase of competition is leading to price undercutting."⁵⁷ While the larger regional motifs are leveraged in external markets, there is no cluster specific identity in place. With new entrepreneurs accessing markets directly, there is surely a surge of competitiveness. However, different markets are also accessed. For weavers from distant villages like Adhoi, which is not well known and difficult to access, there could be a perception of being short changed as compared to the well known, established villages. This is shared in informal conversations with Khamir, which is seen as a neutral space.

However, there is a recent change among the job worker and weaver entrepreneur relationship due to the Kala cotton intervention by Khamir. Adhoi and Ghanithar were always seen as being too interior and therefore left behind compared to villages like Bhujodi. In Ghanithar, Lalji

⁵³ Group meeting, Dhanithar village, February 24, 2018

⁵⁴ Khatris undertook tie dye work for the communities.

⁵⁵ Meeting of core team, Khamir, November 6, 2017

⁵⁶ Group meeting, Kotay village, March 15, 2018; see other income levels, earlier in section 4.1.2 above.

⁵⁷ Group meeting, Adhoi village, February 25, 2018

Job work, entrepreneurship, and well-being

It was observed that in many places where there were weavers working as job workers for weaver entrepreneurs or traders who were still making low cost acrylic shawls, the weavers tended to see this simply as one more form of work, without any apparent sense of pride. It is possible that here there would be low self esteem, vulnerability and confidence in themselves as artisans. Rather, they would see it as another type of physical labour (*majuri*). In Sanganara, one job worker said that the weaver entrepreneur does not give any advance. The reason being, if they have financial assets with the job worker even they can invest and become entrepreneurs, which the existing entrepreneurs would not want them to become.

However, this is not universally so, as in other places even the job workers seemed to experience pride, dignity, and security in their weaving. The clearest transformation however is where they have moved into becoming an entrepreneur, e. g in Godhra village:

- Devji Ravji Maheshwari expresses that transformation from job work to entrepreneur has given more self-respect, more control over one's time and production, more satisfaction. Also greater respect in others' eyes, as a *kalakar* (artist) and not just a *majur* (physical labourer).
- Karsan Devji Maheshwari: used to work as carpenter, & 4 years in Adani port for surveys; not happy with this. Learnt making shawls, came back to weaving, learnt also Mashru, and is enjoying it much more than his earlier jobs, has been in it for 5-6 years now.

mentioned that they feel a bit out of place culturally when they go to Bhujodi and meet the other weavers from the west. In Adhoi, the new confidence among the younger lot of weavers was making them more articulate and giving them a confidence to begin thinking like entrepreneurs. This is a significant change as after the earthquake, weaving declined and they had pretty much given up hope in the context of the local declining markets. Here the inequality is not due to vanaat but due to other occupations like real estate, big shops etc, and a bit due to powerlooms, though currently there is not enough demand for its production.

Some job workers shift between job work & accessing markets directly. With Kala cotton, unlike acrylic, initial investment in raw materials and time taken to monetise production is quite large. Perhaps Kala cotton has created another source of inequality. Acrylic production requires comparatively less capital, which enables weavers to be in control of their own production. Also with many new players in the district, there is a line of dependency on the new genre of traders and entrepreneurs.

It is also interesting that most vankars, especially the job workers, do not wear the products they are weaving, especially if it is Kala cotton, as they can't afford it! Some of the entrepreneurs have made it a point to wear Kala, and there is discussion on how this needs to be increased amongst others (especially the youth), perhaps by enabling some extra yardage to be retained by job work weavers rather than have to sell off everything.

Balance between work, community time, "leisure" time

Communities practicing traditional skills work at their own pace, from home, with a nuanced balancing of social and familial obligations with livelihood imperatives. One of the many negatives of catering to distant markets is the imperative to supply within the stipulated time. This pressure to keep to deadlines seems to have influenced the younger generation, who now question the time spent on social interactions and obligations:

"if we work for 8 hours there is good work, but now we spend more time in traditional social obligations, so we get only 4 hours.. Our homes and family members are completely involved in the work... self-discipline and self-management are important..."

"In the traditional systems, we get less time for work...many times, half of our day goes in social occasions. So the economy is breaking... the youngsters are questioning this."

However, there are also strong counter-narratives, especially amongst many of the young vankars who have stayed back or returned to vanaat. The revival of handloom weaving, while critically reliant on the existence of a market (local or national/global), is seen as a phenomenon with inter-related economic, social, cultural, emotional, intellectual elements and meanings. It is not merely a 'job'. The study recorded repeated assertions of the fact that vankars were in it not only because of the income, but also because it provided them autonomy (control over means of production as a crucial element of this), freedom (in terms of aspects like when and how long to work), continued family and social connections since production was at home and involved the whole household, space for innovation and expression of creativity (Prakash Naranbhai Vankar's 'the loom is my computer', quoted below, being symptomatic), identity (as a community, as a distinct craft identified by a unique Kachchh design), comfort compared to many other occupations they had access to (e.g. agricultural and industrial labour), a chance to express a spiritual responsibility (with vanaat skills being 'god's gift'), and other such non-economic aspects. Young vankars were especially vocal about these aspects.

This narrative also suggests an exception to the conventional understanding of how a greater degree of commercialization or marketization of a livelihood will lead to alienation of the worker from the products of his/her work and from the

means of production. We come back to this in the section on Key findings..

In Adhoi, there was a pervading sense of doom about the local markets. Some said it was now 20% of what it used to be earlier while some felt it was now only 5 % and only a matter of time before it would all end. While there was hope about Kala cotton, and it was clearly being seen as a revival, when asked questions about its hypothetical end ("what after Kala?"), there was no response - an indication that they had not yet thought about this. They will act on it as and when the situation warrants.⁵⁸

4.2 Socio-cultural transformations

Indian society in general has been characterised by moderate to severe inequities within and between communities. These relate to casteism (prevalent especially in Hindu society but also communities practising other major religions, and much less prevalent in *adivasis* or indigenous/tribal peoples), patriarchy and masculinity (almost universal, though again less pronounced in *adivasis*), ethnicities (between *adivasis* and non-*adivasis*, or different religious groups), 'ability' (differently abled people being discriminated against), age (the domination of elders going beyond justified respect to a serious lack of space for the young to express themselves), and others. The study attempted to understand if and how transformations may have taken place in some of these aspects, as a result of or linked to the transformations in the economic sphere.

The study assessed (mostly on a qualitative level), the relationship between the revival of vanaat and some key aspects of the vankars' social life, particularly their experience of casteism, gender relations, and the role and position of youth. The transformations seen in these are set below within the context of the socio-cultural importance of vanaat in the lives of vankars.

⁵⁸ Group meeting, Adhoi village, February 25, 2018



Bhajans have been integral part of the culture of vankar community, including those that use analogies of weaving in explaining vankar community, including those that use analogies of weaving in explaining



Saris woven by vankars using Kachchhi motifs and patterns, Kotay



Diverse range of handloom products including stoles and scarves woven by vankars for external markets

4.2.1 Vanaat as an identity

Vankars consider vanaat to be their source of livelihood as well as pride. They consider their practise to be equivalent or even superior to other jobs and professions. Weavers in Ghanithar stated that weaving requires more intelligence than studying in a formal system. It requires 'magaj-shakti', a kind of mental power because the act of weaving requires knowing and doing multiple processes, each with different calculations, techniques and yet simultaneously in sync with each other⁵⁹. It is a different kind of intelligence, perhaps one that has preserved traditional knowledge systems since centuries. Prakash Naranbhai Vankar from Bhujodi compared his loom to a computer stating that vanaat is no way of lower status to any other city job⁶⁰.



Narayanbhai Vankar and his sons, Prakash and Prashant who are carrying forward the traditional livelihood of vanaat, Bhujodi

"Mehnat is there in all jobs, even in computers, where its mostly mental mehnat ... but in weaving it's a balance of physical and intellectual, which is good for us"

- Youth meeting, Khamir, June 2018.

Weaving has provided vankars an opportunity to raise their status in the society, and has generated a rich sense of self-respect. Many vankars spoke about how through weaving practise, interaction with the outside world has increased, thus, resulting in social impacts which are significant. With advent of weaving as full time profession, there is greater sense of economic prosperity and well-being. There is less dependence on others, greater respect and satisfaction of working from home and freedom to innovate unlike the hard life of factory labourers⁶¹. Technological inventions such as digital tools for marketing have made the process even more convenient⁶². Training in artisanal craft schools and interaction with fashion designers has instilled in them sense of dignity of being karigars and not just mazdoor. Also unlike some professions which they have tried eg. construction labourers, factory workers and others, weavers can continue to weave till the age of 60-70, thus, providing sustained source of income and employment⁶³. The fact that weaving is family profession i.e. entire family has to participate in the different processes of weaving, weaving is not just an economic activity but is also connected to social and cultural relations and thus, becomes a social identity and not just an individual profession⁶⁴.

Weaving has thus enabled in strengthening community's self-respect and esteem and created conditions for a more authentic wellbeing and expression of the community's inherent creativity. It has therefore an intangible quality that has sustained the humaneness of the community and given them an identity.

"Vanaat is our olakh, wherever I go, I introduce myself as a vankar, money is later" – Arun Meghji Vankar⁶⁵

What we found was also a community reasserting itself due to a combination of factors.

⁵⁹ Group meeting, Dhanithar village, February 24, 2018

⁶⁰ Personal communication, Prakash Naranbhai Vankar, Bhujodi village, July 11, 2018

⁶¹ Group meeting, Mathal village, March 12, 2018; Group meeting, Kotay village, November 7, 2017

⁶² Group meeting, Jamthada village, December 20, 2017

⁶³ Group meeting, Sanganara village, March 12, 2018

⁶⁴ Meeting of core team, Khamir, September 12, 2018

⁶⁵ Meeting of youth, Khamir, June 13, 2018



Young weavers do not consider vanaat as mechanical, but rather embodying creativity and innovation, "The loom is my computer; I have to continuously think, innovate, it is not only mechanical"

The rights ensured by the constitution along with other affirmative policies and programs have enabled to counter the caste marginalization to some degree. The icing has really come in the form of international recognition and prosperity for a significant number of the community members who still practice weaving.

However, amongst some vankars there is a feeling that weaving is a great livelihood for those who have no or little education. It is not being seen as a viable employment option for most but rather as the default option with current potential. An insight that we received during our *reyan* in Adhoi with young weavers and with weavers in Ghanithar, was that weaving can be a very good option if the market is good, for those with limited formal education. They seemed to see it as self-evident that once someone studies up to a certain level, they would not come back to weaving.

In spite of these contradictory perspectives, generally speaking vankars continue to retain a sense of belongingness to this vankar community linked with the weaving practise.

While it differs in degrees from the demarcated regions, there is an overall sense of belonging to the same *samaj*.

Importantly, weaving is not seen as only a business or source of income, but also as a calling, with spiritual associations. This is visible in the work culture or ethic. Weavers have mentioned that there is an emphasis on how the loom has to be cleaned, maintained as if it were not just a machine but much more than it. It is not just means of economic income but also a spiritual practise and hence has to be respected and valued. "One can understand the mindset of the weaver from looking at the condition of the loom"⁶⁶.

While going through these transitions, it is important to look into the changes certain beliefs, values and principles. Earlier because the markets were largely local and clients were fixed, there was minimal competition, though it was not absent. Competition is not a new phenomenon, but today the principles of functioning in this competitive business has changed. Apparently elders would advise vankars to keep a limit to the

⁶⁶ Meeting of core team, Khamir, January 4, 2019

profit margins they were setting, to help prevent wider gap of inequality amongst the weavers themselves. However, with changing market trends and commercialisation, profit margins are no longer subject to such values.

However, the interesting point to note is that this change in economic standards in the profession is not reflected in their social relations. One sign of this is the fact that in social ceremonies such as marriages, expensive expenditure and big fat weddings are still frowned at by the community, as it looks down upon lavish presentations and respects and values simplicity. This value of community, a *samajik* value is reflected through the *dharmik* identity of *Nirgun* or *Nijar dharma* which still binds the community together. Though it is necessary to understand that this observation might be important only for those who still practise weaving but not for those who have moved out of weaving and have changed their lifestyle. But there is a note of caution as the economic prosperity and hence, the inequality is a recent phenomenon, over a period of time this *samajik* value might change, as seen for instance in the increasingly consumerist lifestyles of some vankars, or in the high profit margins some entrepreneur weavers keep.

4.2.2 Increase in well-being

Complexity in response to new and changing markets has brought about more fluid structures where it is possible for the job workers to migrate from weaving to either other opportunities or to transform to high skills if they wish, for the semi-skilled artisans to move onto to fine weaving and set up their own businesses and for weaver entrepreneurs to constantly feel under threat from the new players, thereby ensuring fair wages for the job worker weavers at least in some sections of the community. Devji Ravji Maheshwari stated, “transformation from job work to entrepreneur has given more self-respect, more control over one’s time and

production, more satisfaction. Also greater respect in others’ eyes, as a *Kalakar* and not worker”⁶⁷. Women now have the choice to weave instead of only playing unpaid, supportive roles to their husbands. Young and aspirational weavers find a new sense of pride and value in their traditional occupations rather than moving towards factory work and other types of employment. For example, Karsan Devji Maheshwari, a young weaver in Godhra used to work as carpenter, and in Adani port for surveys but was unhappy with his work. In 2010-11, he learnt to weave shawls and Mashru weaving, began enjoying it and since then has been weaving full time⁶⁸.

For several vankars, including many youths, weaving is a preferred option. This includes some who’ve tried some other occupations in cities (including work in the Gulf which is relatively better paying), or who are doing well due to direct connections with the market using digital means. There is an assertion of the positives of rural life, some vankars pointed out to the differences between city and village life i.e. identity vs. anonymity, warmth and human face towards each other and guests, etc. “*We are happy here, city life is hectic. Here if someone is unwell, the entire community comes to help but not in the city*” – (Meeting with elders, Bhujodi, July 2018; Jamthada, Dec, 2017). Another factor for preference to weaving expressed was proximity to family in weaving compared to other jobs.

In economically better off villages like Bhujodi, Adhoi, Kotay there is a stark influence of city life. There is change in lifestyle – change in dressing style, living conditions, access to health and education. Because of technology, there is more access to markets, some vankars in Bhujodi pointed out to the fact of improvement in English due to mobiles⁶⁹. Along with these benefits, influence of city life has also brought with it its own problems. Some vankars pointed out to the issue of rise in drinking within the community.

⁶⁷ Group meeting, Godhra village, December 21, 2017

⁶⁸ Group meeting, Godhra village, December 21, 2017

⁶⁹ Meeting of core team, Khamir, November 1, 2017

*"Daru has become fashion. People are doing manmani, no dar"*⁷⁰. Influence of English and Gujarati and other languages in schools, television and social networking sites are reducing the importance of Kachchhi, the local language, thus, possibly threatening its existence over a period of time.

The line between community life and professional life is quite stark, as vankars do not mix professional dealings and ties with family life. This is evident from the fact that in spite of being competitors in business they share strong communal ties. In order to keep their communal harmony intact, vankars do not discuss weaving related and business related issues in village meetings. Thus, they run their enterprises as independent entities while maintaining the belongingness with the community.

4.2.3 Reduction in caste discrimination

Historically, the caste relations between vankars and other communities in Kachchh were very discriminatory, with the practise of untouchability being particularly pernicious. The vankar would be called to the gate to be given the wool for spinning and weaving, and would collect the *ludis* or shawls from the gate itself. Then they would sprinkle water on the shawl in order to purify the cloth (Ksing and Singh, no date).

A part of the vankar community also did leatherwork for their client families. As the Rabari community practised 'untouchability' they did not even want to breathe the 'stench' of leather. Therefore, the vankar community was given the eastern part of the village as the Western winds blew the stench of the leather-making process away from the housing localities of the Rabari communities. Though they do not now do leather work, the custom of giving the vankar community the eastern part of the land still exists (Ksing and Singh, no date). Kayabhai Bhavabhai Vankar who

brought first power loom to Adhoi spoke of his difficult childhood where he had to do manual scavenging and beg for food⁷¹. There are stories of Ahir and Patel families forcing weavers to work as farm labourers for a pittance⁷².

Historically, vankars have struggled against this form of discrimination and have found their own paths to regain/restore their social status. The myth of their origin points out to an interesting anecdote of how the community found ways to integrate themselves in the society and earn their respect and identity. There are many origin stories about the *Megh-Marū* – the generic community group to which the present day vankars belong. The most popular and widely narrated is the story of *Megh Maya*, who offered himself as a human sacrifice when there was a drought in the land. However, in return for his sacrifice, he demanded better conditions and privileges for his community who suffered under the social customs of untouchability of that time. The sacrifice did bring rains and since then the community of the Megh Maya was believed to have spiritual powers. They were all termed as *Rikhya/Rakhiyo*, an early term perhaps for rishi, meaning a person with spiritual knowledge and power (as per a story told by Gopalbhai Ninjar, Nirona, a bhajanik). The *Rakhiyo* was the respected figure in associated Rabari families and his bhajans were inseparable parts of all occasions of the Rabari families.

The story above is complex in that it speaks about existence of social discrimination but also elucidates a safeguard that perhaps maintained self - esteem for the community in the face of harsh treatment. In this case a community that is/was socially oppressed but also believed to hold spiritual power and therefore to be respected.

Another example of re-establishing their identity and self-esteem is seen in the fact they consider their vankar identity to be more crucial. Many vankars do not like to identify themselves as

⁷⁰ Group meeting, Jamthada village, December 20, 2017

⁷¹ Meeting of core team, Khamir, November 6, 2017; Group meeting, Adhoi village, February 25, 2018

⁷² Group meeting, Jamthada village, December 20, 2017

Dalits, they do not accept the term Dalit⁷³. According to some discussions it was found that, since 1970-80s when weavers started getting recognition through national awards, many weavers stopped referring to themselves with their traditional surnames which are associated with their caste, instead began using the term 'vankar' in their names as a form of a new identity. Thus, in a way the weavers have been trying to refuse labels which carry the history of caste discrimination and injustice and trying to re-define their role and identity in the society.

Greater access to national and global markets has created choices for the artisans. This has led to loosening of certain exploitative relationships with other communities which were based on discrimination and caste. Clear and consistent reporting of reduction in casteism, especially its worst forms of untouchability, and a generally greater sense of equality with other communities, has been observed through discussions and interviews⁷⁴. Less clear is how much of a role the economic transformation has played in reducing casteism; several vankars said their greater wealth status, their contacts with outside world leading to less dependence on the upper castes, greater confidence levels, and other such aspects associated with the revival of vanaat, were factors. But many also talked about social reformers such as Babasaheb Ambedkar, Dulerai Karani (a poet), education and legal as well as constitutional measures as being some of the other primary factors⁷⁵. Himmatbhai Parvatbhai Leuva, Sarpanch on general seat between 2003-07 stated that untouchability is completely gone, due to Morari Bapu's teachings, the law, our economic transformation, and national/state awards⁷⁶. There are instances

where the communities have had to come together to solve villages issues, for instance working on water harvesting for drought-proofing. The relative role of such 'background' factors or circumstances compared to that of transformation in vanaat, is not possible to determine without deeper and wider study.

The new generation is much less steeped in casteist traditions. The younger generation is less aware and conscious about these practises, and such relations have got hidden because the interaction between Rabari families and vankars have changed⁷⁷. Also, as mentioned by Devjibhai Ravji Maheshwari, working in cities where people eat, drink, live together has blurred the lines of discrimination⁷⁸. Due to economic changes, status quo of vankars has improved, in some situations even reversed. Rabari women now do embroidery, value addition for the weavers and seek employment from them while earlier it was the weavers who were dependent on them for work.

However, discrimination has not completely gone. *"Now the issue does not exist, there is open freedom, weavers can go to upper caste homes but upper caste do not visit weaver's homes. People are not openly saying anything, but the mentality is still there..."*⁷⁹. Several vankars reported continued discrimination of various kinds. Food is still not offered by Patels, invitations for weddings are not extended to the Maheshwari weaver families⁸⁰. There are incidents where even now Rabaris make vankars sit outside and give food, and vankars still can't go into some temples. Social customs like marriage are still within the community structure. No inter-caste or inter-religious marriage is allowed, *"roti vyavhar, beti vyavhar nahi"*⁸¹. Some

⁷³ Conversely, there is a section which is leaning towards the ideology and philosophy of the All India Backward and Minority Communities Employees Federation (BAMSEF), a nation-wide movement of Dalits and other oppressed social sections, against discrimination. Their motto is that we first need to 'fight for our right'. This organisation has been functioning for over a decade, and has been against any form of traditional, ritualist practises including the tradition of paatkori which the elders consider to be an integral part of the vankar community's identity (Bhujodi, Dec, 2017). However, the study could not go further into this aspect.

⁷⁴ Reyan, Bhujodi village, December 21, 2017

⁷⁵ Meeting of core team, Khamir, November 1, 2017; Group discussion, Kotay village, March 15, 2018

⁷⁶ Group discussion, Sarali village, December 20, 2017

⁷⁷ Meeting of core team, Khamir, November 6, 2017

⁷⁸ Group meeting, Godhra village, December 21, 2017

⁷⁹ Meeting of core team, Khamir, November 6, 2017

⁸⁰ Group meeting, Godhra village, December 21, 2017

⁸¹ Relations where food exchange is allowed, but not inter-marriage; Reyan, Bhujodi village, December 21, 2017

communities in Jamthada still practice discrimination. If a vankar gets touched by chance, they sprinkle water on themselves. The younger generation is friends with vankar children but touching and going into their house is still not accepted⁸².

It is these contradictions which are still very much present within the vankar community. In spite of these contradictions the highlight of the struggle of vankars has been that, they have tried to fight against the discrimination while continuing to stay back in villages, practise traditional occupations and improve one's lives. This is in contrast to the conventional Dalit narrative which, building on Ambedkar's well-known disdain for villages ("What is the village but a sink of localism, a den of ignorance, narrow-mindedness and communalism?"), has been to move away from traditional occupations to modern ones, and from rural to urban areas. A Shamji Vishram Siju proudly wearing his Kala cotton kurta-pyjama, content to stay on his village, or a much younger Prakash Naranbhai Vankar declaring his loom to be his computer and taking pride in his family tradition of carpet-making, but both also very much in touch with urban India and its consumers, seem to be making any black-and-white narratives of what can help transform the lives of the oppressed seem rather simplistic.

For a community systematically and as a whole discriminated against and oppressed for many generations (possibly centuries), and having faced the ignominies of untouchability, the significant reduction in casteism is a major transformation. Whether there is an overall increase in the sense of equality amongst castes in the villages that the vankars live in, and more so whether caste as a phenomenon itself is on its slow way out, is difficult to say. Such an understanding would require more sustained involvement with and absorption in the community's life than was possible in this study.

4.2.4 Women's empowerment

As vankar community's status began changing, education increased and interactions with outside world began growing, status and role of women have also begun to change.

In earlier days, taboos used to exist. Only women were allowed to spin and do the warping, even if the men were free (Ksing and Singh, no date). If women would not spin and do the warping, men would go in search for jobs outside. Hence, the role of women in weaving was extremely crucial, however, unrecognised and unpaid. This situation has changed since women have started claiming for their recognition and contribution in the process of weaving. Women's role in pre-weaving is now being explicitly acknowledged and valued by including it in overall wages or by paying separate wages for the pre-loom work.

Traditionally women did not sit on the loom and weave, now there are many instances of women doing actual weaving. In Adhoi there are examples such as, Prakash Bijal Vankar who has set up a separate loom for his wife, and a couple of cases where the wife has taught the husband how to weave. Thus, bringing in the knowledge and skills of weaving from her maternal house and carrying forward the tradition of weaving. In Adhoi, Jaishreeben Harijan is one of the seven women weavers in the village. She taught her husband how to weave and said that feels empowered as she can financially support the family. Women are also learning and getting into processes they were not in earlier e.g. dyeing, yarn treatment.

There are instances of young girls like Champa Siju Vankar from Awadhnagar and Sanjot Sheetal Hitesh and Buchia Roshni Pachan from Jamthada, who are weaving for external markets. They are more vocal about their efforts and their aspirations to become full time weavers and even entrepreneurs in some cases. Alongwith weaving revival, greater ability of women to go out of home/village for vanaat-

⁸² Group meeting, Jamthada village, March 19, 2018



The changing roles of women's association with weaving from doing the pre-loom processes, being in background, unseen and to the present where many are confident and aspiring weavers.



Kankuben Amrutlal Vankar of Kukma, sarpanch, explaining her ideas about good governance and her journey so far.

related events, participation in events like Women's Day, contribute to savings mandlis like those in Rampar Vekra has boosted their confidence levels and has given them space to grow.

The story of Kankuben Amrutlal Vankar, a weaver from Kukma and national award winner, is inspirational for many women entrepreneurs. She used to employ around 35 women weavers for her weaving business before she became a Sarpanch. She mentioned that her husband supports and helps her in the process, and decision-making within the shared equally⁸³. Hansaben Meria, a woman entrepreneur from Rampar Vekra used to employ around 6 weavers. However, as acrylic market has diminished, she now has 2 weavers (1 male and 1 female). She mentioned that her husband helps her in cooking and even in pre loom processes. Both of them attend exhibitions and trade fairs together⁸⁴.

Plastic weaving introduced by Khamir as an effort to reduce the ill-effects of growing disposal

of plastic waste has become one of the strongholds of women, especially in Awadhnagar. Women were trained and have been practising plastic weaving with a sense of pride as their own contribution towards making the environment safe and clean again. Thus, generating a sense of self-respect and value for their own work. Plastic weaving has spread and become popular in other villages such as Kukma, Kandherai and Varnora. Contrary to the male self-help groups, plastic weaving associations which consist only of women that have better access to micro-credit (Kaindl, Goradia and Ramseier, 2016).

The example of Rajiben Harijan, a plastic weaver and employee of Khamir, who lost her husband and has supported three children and her family through weaving, is a vivid example of women empowerment. She now participates in women's meetings and discussions to represent women community and even travels to exhibitions and crafts conferences.

⁸³ Personal communication, Kankuben Amrutlal Vankar, Kukma village, March 11, 2018

⁸⁴ Personal communication, Hansaben Meria, Rampar Vekra village, March 19, 2018

“Khamir and plastic weaving opened up doors to support my family and gave me confidence to face the world” – Rajiben Harijan, Awadhnagar

However, in contradiction with the above mentioned example there are also some example of continuation of several kinds of gender discrimination, societal pressure, lack of power in decision making, including at times an increase in workload since women are now doing both weaving and housework. In Adhoi, where women were weaving, it was certainly the case that it required support of other members like husband, mother-in-law and daughters to take on the household chores. Support of husband and other family members in sharing the household responsibilities become crucial for meaningful participation from women. The state of women is better now, they have the freedom to go out. But in some instances, men still have an upper hand in the decision-making process, for example, men only give money to manage the household and keep the rest of the money⁸⁵. In Jamthada, Sheetal Hitesh Sanjot, a young weaver expressed her desire to stand for Sarpanch elections, however, her relatives did not support her in spite of her parent's approval. She said, it's a close knit community, we need to also listen to our relatives and elders also⁸⁶. In the same village, another girl bitterly recounted how her brother had all the freedom to go where he wanted, but she was subject to all kinds of restrictions.

With these changes, another change in the roles and responsibilities of women also seems to be affecting weaving. With the advent of education, TV, travel and other technologies, women are choosing varied options for themselves, including teaching, or running shops and beauty parlours. At times womenfolk, especially the younger ones are refusing to wind bobbins as they feel that it is a very boring task (Ksing and Singh, no date). Thus, weavers now either have to depend on external sources of procurement or give up weaving altogether. This change in roles and responsibilities needs to carefully balanced

and dealt with if the weaving tradition has to be kept alive within family relations, said some elder weavers.

4.2.5 Role of youth in weaving

Youth are clearly quite active in the vanaat revival. Greater role in design creation, ability to link directly to market in some areas, and networking amongst one another are signs of them being active in the revival⁸⁷. The young and aspirational weaver entrepreneurs are now interacting with designers and the markets on an equal footing. Due to artisanal craft schools and exposure to external markets, young weavers have found a path to combine their traditional skills with attraction of modern twist of designs and fashion, thus sustaining a traditional ways of life with new way of practising it. They believe that artisanal craft schools have given them respect which they deserve. They are not *majdoors* anymore but *karigars*⁸⁷.

Prakash Naranbhai Vankar in Bhujodi has successfully carried forward his father's business of daris - carpet weaving and supplies woven products to international markets. In Kotay, out of 42 weavers, most are under 30, the youngest being 19-year-old⁸⁹. One major factor, other than general economic revival and young people's ability to make use of this, is new avenues available through training in artisanal craft schools, cell phones, internet. Return of several youths to weaving is an important (even if small-scale for the moment) phenomenon, see below re. reverse migration.

It seems that the equations with elders are much slower in the change. The strong sense of community still ensures a certain respect for elders though there could be a bit more vocal and equal terms of dealing now than before. In Adhoi, where some of the youth like Arvind Shivji Parmar are on the weaving ascendant, their fathers have taken up the role of a mentor, while the younger generation is in the decision-making role.

⁸⁵ Group meeting, Siracha village, March 16, 2018

⁸⁶ Group meeting, Jamthada village, March 19, 2018

⁸⁷ Group meeting, Adhoi village, February 25, 2018

⁸⁸ Group meeting, Kotay village, March 15, 2018

⁸⁹ Group meeting, Kotay village, March 15, 2018



Young weavers are keen on understanding transformations in their livelihoods through the case study discussions, Adhoi

This influence of young energy is bringing in innovation into the traditional practise of weaving and at the same questioning some of the traditional beliefs and practises. Exposure to the outside world has created the need to supply to a market which works on targets, profits and deadlines. This concept earlier fluid and almost alien to the earlier vankars is now creating a change in the way of the functioning. But while it is clear that most young weavers have come back to weaving because of the financial stability, but the emotional connection, cultural pride associated with weaving, and the emphasis on the social capital and feeling of belongingness which exists in the village and not in the city, were also stressed.

Some young weavers also expressed their discomfort with social customs, rituals, gatherings which are causing hindrance in their work by impinging on their time and reducing overall productivity⁹⁰. Earlier, understanding of time was different, while dealing with local markets and clients there was flexibility in time. This could cause friction in the way the craft was practised, as explained by an elder weaver, weaving has become more of an economic

activity than earlier, and somehow not so integrally a part of life in general. Everybody now-a-days wants quick results, but any craft or art requires time and patience⁹¹. Thus, according to such elders, the younger generation needs to find a balance between maintaining the strength of the weaving practise which attracted them back to it and at the same time move along with the external market and changing times.

4.2.6 Complex inter- community relations and initiatives

While economic disparity is a reality, there is a realignment and commitment to the community through various social initiatives. Youth are active in many of these initiatives and are carrying forward the work of improvement of villages.

In Kotay, vankars have a '*Maitri Mandal*' which consists of male members where they discuss social issues (and not economic or work related) of Vankar Samaaj⁹². In 1987, youth of the village successfully campaigned against meat and *gutka*. Manjibhai Madan Sanjot, a teacher,

⁹⁰ Meeting of youth, Khamir, June 13, 2018

⁹¹ Meeting of elders, Bhujodi village, July 12, 2018

⁹² Group meeting, Kotay village, March 15, 2018

started *Kutchh Meghwar Vankar Mitra Mandal* to increase education facilities in the village⁹³.

In Adhoi, we found a re-energized *mandli* of the Marwada and Maheshwari Samaj called the *Gadhchovisi Meghmaru Maheshwari Samaj* that was run by young and middle age members. Two persons from each of the 24 villages are selected for this *mandli*. The *mandli* has men in it; no women are included. One of the activities was to institute progressive reforms for the communities every 14th April, the birth anniversary of Dr. Babasaheb Ambedkar. Now they are starting a special *Yuva Mandal* and Ambedkar Trust to reduce social evils, help widows, control deforestation⁹⁴. The last reform introduced by them was to abolish the system of discrimination practised during wedding ceremonies by serving meals together to all. Even the more economically poorer Gurjaras whose incomes are now stabilising because of Kala cotton weaving are thinking of constructing a community hall for social events and gatherings⁹⁵. Another interesting phenomenon of community initiatives has been the increase in practises such as *Samooch Lagna*, or community marriages where expenses are shared and sponsored.

In Jamthada, as in most other villages we visited, there is a *Yuvak Mandal* (present 30 members) which collects money each month and help members in need. They organize cultural events and meetings from time to time. This *mandal* works for the progress of the village. Shantital Rajabhai Buchia one of the members told us that certain traditions still continue in the village through these groups, e.g. taking care of the sick person together. They are also planning to buy some expensive resources such as *mandaps*, large utensils, which are needed during weddings and other community festivals and rent them out to families at very cheap rates in times of need⁹⁶.

The practices of taking care of the needy and supporting the poor in times of crisis are still

found. The *Mahajan* tradition⁹⁷ therefore is still very much alive but taking on newer expressions, less exploitative but still strongly felt. One such practise is lending of soft loans, the weaver entrepreneurs provide loans to their job workers in times of need at less interest rates and less exploitative reimbursement practises. As they mentioned, they value relationships over money⁹⁸.

Such initiatives and practises have been ways of the community to ensure well-being and betterment of the entire community or village. However, though the community ties and class system are not very rigid and anybody can become a weaver entrepreneur, the ways to become one are not very accessible and easy. Some job workers mentioned that weaver entrepreneur do not give any advance. The reason being, if job worker has financial assets even they can invest and become a weaver entrepreneur which the existing weaver entrepreneurs may not want them to become. This is not universal; some weaver entrepreneurs have gone out of their way to help job workers.

4.3 Knowledge transformations

While at the beginning of the study, knowledge aspects were subsumed under the Socio-cultural sphere, enough of importance and distinction emerged to merit making this a separate section. The knowledge, skills, expertise, and experience related to vanaat are fulcrums of the craft, and the study observed both continuations and changes taking place in these aspects.

4.3.1 Transmission of knowledge

Considerable intergenerational transmission of knowledge is continuing through traditional systems of parental teaching where the young one first begins to observe, participate in small tasks and slowly moves on to mastering the technique⁹⁹. Artisanal craft schools and online

⁹³ Group meeting, Kotay village, November 7, 2017

⁹⁴ Group meeting, Adhoi village, February 25, 2018

⁹⁵ Group meeting, Dhanithar village, February 24, 2018

⁹⁶ Group meeting, Jamthada village, December 20, 2017

⁹⁷ A traditional system of patronage, or of business people doing charity in their native place or for their community.

⁹⁸ Group meeting, Dhanithar village, February 24, 2018

⁹⁹ Group meeting, Dhanithar village, February 24, 2018



Discussion about the study with *vankar* women, Awadh Nagar

courses are further helping them to hone their skills to innovate and understand the markets. Traditional transmission from father to son has been supplemented by other forms, e.g. wife to husband or vice versa, father to daughter. One system of transmission has however disappeared: that of young boys being adopted by one of the extended family units (even often in another village), for a few months while they learnt from their uncles or other male.

The system of understanding their own craft has partially changed, with the traditional systems of learning being supplemented by the artisanal craft schools. However, it is mostly the case, that both systems of learning exist as the basics of weaving are still learnt at home, and young weavers regularly consult the elders and older weavers for technique and motifs. Meghji Harji Vankar remembers one lesson taught by his father *“first connect your psyche with the thread, with the quality and characteristics of the thread then start weaving”*¹⁰⁰. Sanjot Sheetal Hitesh, a young weaver from Jamthada also spoke about a similar experience of learning from her elder.

While the traditional system of knowledge transmission and artisanal craft schools are creating young, creative weaver entrepreneurs, lack of knowledge and information about such crafts in mainstream education system is matter of huge concern for the community. Murji Hamir Vankar, weaver entrepreneur from Bhujodi, expressed his concern that, it is good that our children are getting educated, and are able to interact with the outside world confidently. But this could lead to alienation from values of community and *vanaat*. Hence, it is our ethical responsibility to keep our younger generation informed and connected with our tradition. Shyamji Vishram Siju recollected that in his school days they had a separate subject named *‘udyog’* till 1990s, which included weaving, but this subject was later replaced by computers; today arts and crafts are only in textbooks.

4.3.2 Innovation

The history of Kachchh weaving has been one of exchange and interaction with merchants and travellers who passed this land at the

¹⁰⁰ Group meeting, Jamthada village, December 20, 2017

intersection of western India and the countries on the other side of the Khyber Pass. There has been a shared tradition with the Sindh Province and parts of Rajasthan connected through the Thar desert. Kachchh was 'remote', isolated. The communities that settled here were either fleeing, or were banished from their original lands, or were merchants who had settled for trade due to Kachchh's ports. They all had distinct styles, techniques and languages as they had identities. The region's isolation made them even more alert to new opportunities and possibilities of change. The floorcoverings that are being made even today in some Kachchh villages like Bhujodi were inspired by local styles in Sindh and further up the North Western Frontier.

Innovation in Kachchh then needs to be seen more as a slow moving process that is influenced through the interactions among human communities, and between humans and Kachchh's unique ecosystems, rather than a dramatic invention. What makes the trajectory of the weavers of Kachchh fascinating is their ability to change chameleon-like, yet retain the original form of their weave.

The early weavers were limited by color. A lot of the desi wool products they made were in the natural colors of wool. Vegetable colors were added later due to their exchange with the Khatri dyers and the Rabaris who knew lac dyeing. The designs were rendered mostly on the blanket or *dhablo* which was a multipurpose cloth, and on *lunis* and skirts. It could be worn on the shoulder, used as a mattress and as a head-cover against the elements. When merino wool began replacing the desi wool, the market for the weavers began to change. Interestingly, the weavers turned back into their own known data bank of designs in the *dhablo* and the *luni* (a tie-dyed veil worn by Rabari women) to play with the new material. In the process, they created a new product, now popularly known as the Kachchhi shawl.

When the markets for merino wool became limiting, one of the weavers introduced acrylic wool yarn as a substitute. The weaving was easier with acrylic and it came pre-dyed in a riot of colors. This opened up a mass market due to the economical price as compared to pure wool. The weavers witnessed a boom as middle class India discovered the Kachchh shawl. This enabled a large section of weavers (some of them neo-learners) to enter the job work and entrepreneurial space. So while acrylic replaced the natural wool of Kachchh, it created livelihood opportunities in unprecedented ways for the weavers.

This however soon led to stagnation (and decline when faced with competition from textile industries) and some of the more exposed and entrepreneurial weavers began experimenting with fine qualities of merino wool, more complex designs in acrylic and also with silk and cotton. This however remained the preserve of a few with the other weavers being resigned to their fates.

The earthquake of 2001, changed this. The advent of numerous aid agencies, designers and government programs led to new tools, new ideas and market exposure. The emergence of organizations like Khamir and the artisanal craft schools set a more level-playing field for many of the weavers to participate. Khamir's first exhibition with weavers in 2007 brought together master craftsmen, small entrepreneurs, competing weaving villages and job workers all on one platform. While Bhujodi and Sarali are the predominant weaving villages, weaving happened in many pockets across Kachchh. Interestingly, Sarli weavers developed a different look to their products from Bhujodi, and aggressively sought out more wholesale markets since Bhujodi had more control over retail selling. There was a time when two young weavers from the entrepreneurial weaving families of Bhujodi, Shyamjibhai Vishram Siju and Chamanbhai Premji went to National School of Design for

admission. They were refused as the institute felt they would not be able to follow the instruction in English. After having being exposed to numerous urban designers, the weavers viewed the profession of design as an exalted and mysterious thing. Judy Frater's Artisan Design School in Kachchh managed to break through this mystique, and directly link to the aspirations held secretly by artisans in Kachchh.

Once the Artisan Design School began, there was no going back. It truly empowered the innate creativity of artisans in Kachchh, leading to perspectives of looking at their design vocabulary in transformed ways. There is now a never before efflorescence of design styles, exploration of techniques and raw materials. It is truly miraculous that old samples of products have led to a variety of design explorations, permutations, combinations and even partnerships amongst different artisans like the block printers, embroideries and weavers. These continue to remain the lexicon for the weavers, young and old alike, who keep reinterpreting both the design and technique in new ways and with new materials. A more recent innovation in design was taken from the Ahir *pachhedi*, a traditional head cloth of the Ahir community. It had minimal design but a rich weaving texture. The *pachhedi* design was interpreted in vivid colors, both synthetic and natural, and textured backgrounds with more subtlety of design inlay.

One of the reasons for the vast range of design innovation we are seeing today in a variety of yarns and applications, is the unique core feature of Kachchh weaving, viz. the ability to weave very fine designs (extra weft) in relatively coarser yarns (see Box 1 above). A case in point is where weavers in Adhoi have adopted the *tangalia* technique (in which the weave creates raised dots and other patterns on the cloth) into Kala cotton, a skill they have picked fairly easily in the recent past from Gujarat weavers (also vankars) who were traditionally the specialists of the *tangalia* technique. Many weavers who had been

weaving simpler designs in acrylic seem to have seamlessly transitioned to very fine cotton and silk weaving. The innovation then, seems to stem from this innate understanding, ability and command over material and technique. Shifting between fibres and techniques, and mastering dyeing which hitherto was the Khatri community's domain, shows such inherent skills as also an entrepreneurial spirit.

It may well be a coming full circle for the weavers with the development of the local desi wool by Khamir as part of its work with cultural ecosystems. Hand spinning is being revived again both for Kala cotton and for desi wool. And as a product starts turning commercial as Kala cotton has done, some of the weavers are turning again to their past to revive earlier techniques of hand-spinning and weaving in more sophisticated visualization. It is the market that they perceive, or even help create, which values their work, that has brought various triggers. Technological innovation has also created more access and less dependence on weaver entrepreneurs or NGOs. Often, innovation is simple, spontaneous and a matter of a chance conversation.

Much of the weaving retains traditional designs/motifs but some youth are doing significant innovation, including playing around with the basic Kachchhi motifs. Innovations may be driven by at least five factors: responding to or trying to create markets; individual creativity and the urge to innovate; attempt to get awards; training or inspirations from institutions and artisanal craft schools; and the desire to create an identity, make a mark.

Weavers have always been negotiating with the markets, sometimes reacting to the market demands and at times even creating their own markets. All types of markets, whether high-end niche markets or retail, mass markets need design inputs and diversity in products to keep the customers satisfied. Every few years, a design is replaced by a new one. The designs for



Champa Siju from Awadhnagar experimenting with new designs inspired by the Rann of Kachchh

the Indian and overseas market differ substantially in motives (figurative vs. abstract) and colours (colourful vs. black and white). Award winning pieces, however, display mostly traditional motives or new interpretations of them (Kaindl, Goradia and Ramseier, 2016). From 1985 to 2000, sombre colours were preferred by people. However, in recent years, bright traditional colours have made a comeback. Sombre colours and wool products are preferred by foreign customers (Ksing and Singh, no date).

Changes in raw materials also affect designs and innovation. Earlier there were more designs in acrylic shawls which was easier to weave, now with Kala cotton which is a bit coarser and with less twist yarn flexibility, the range of motifs is limited¹⁰¹. Thus, plain weave has become a common trend in Kala cotton as most of the job workers don't have the skill to weave extra weft motifs on Kala cotton¹⁰². This plain weave which can be easily woven on power loom then becomes a threat for survival of handloom. But the need to retain Kachchhi *chhaap* while experimenting will hopefully boost further innovation and diversification opening up newer avenues for vankars. As mentioned by Anuradha Kumra from Fabindia, in 2008 there was huge demand for short *kurtas*, hence, demand for *dupattas* was going down. Vankars innovated by weaving stoles with new designs and colours, creating new market for a different product (Frater and Mondal, 2016).

The freedom to experiment, innovate and create new designs and patterns varies between



Traditional cloth items woven by vankars before modern products and designs came into the markets.

different weavers and the clients whom they work with. Some designers work closely with weavers and let them produce samples based on their skills and interests. Although some designs are specified weavers have some creative leeway. However, job workers are mostly dependent on the weaver entrepreneurs for raw material, which is generally expensive, and in such cases there is no room for creativity (Kaindl, Goradia and Ramseier, 2016). But in general, there are no strict rules about who can innovate or not, there is freedom to innovate as long as livelihood is not hampered.

¹⁰¹ Group meeting, Siracha village, March 16, 2018

¹⁰² Meeting of youth, Khamir, July 13, 2018



Weavers of *Kharad*, a type of carpet woven with wool which is dyed in vegetable colours. To the left is master weaver Samat Tejshibhai Marwada from Sanjotnagar, explaining the design on one of the *Kharad* carpet woven by him.

4.3.3 Balance between fashion and tradition

Importantly, despite all the stress on innovation and new designs and products, there is a strong adherence to the Kachchhi *chhaap*, the basic motifs as also the extra weft that together make the weave of Kachchh unique. Does the need to keep up with the market create a tension in this?

As stated by Shyamji Vishram Siju: *“Based on my experience, I feel that we should balance fashion and tradition. Previously we used to make dhabla/blankets. Now we are making stoles, dupattas, shawls, etc. But all are based on our traditional design. Market demand changes every year. If you focus only on fashion, two or three years later you may lose the market, but if you keep a balance of fashion and tradition, it will give you decent business for a long time”* (Frater and Mondal, 2016)

Some weavers would like to continue the traditional styles and yarns due to an emotional connect with the heritage. For instance, Samat Tejsi Marwada, one of the few *Kharad* weavers left mentioned that though he has innovated according to new trends and demands for livelihood, and though the traditional rugs and products he makes struggle to find a market (having to compete with similar-looking machine-made rugs), he has tried to continue to

weave traditional designs with local yarn and dyes because of emotional and cultural association with the craft.

4.3.4 Need for Geographical Indication

Shawls were the mainstay of Kachchh weaving since 1980s and weavers were getting orders from the traders based in major cities, apart from the local trade in this and other woven products. The orders started declining around earthquake of 2001. The power looms of Ludhiana started copying the Kachchhi shawls using acrylic yarn. These shawls were very cheap and using the same Kachchhi motifs. This has significantly reduced the market of Kachchhi shawls.

In 2007-08, Khamir organised the weavers of Kachchh to claim the Geographical Indication (GI) (under the Geographical Indications of Goods (Registration and Protection) Act 1999) of Kachchh shawls. An awareness program was organised at Khamir with help of the Ahmedabad Textile Industry's Research Association (ATIRA), supported by the United Nations Conference on Trade and Development (UNCTAD). The program was attended by weavers across Kachchh. It was decided that Khamir will apply for the GI and weavers will support the application in form of their affidavits. The application was sent to GI



Kala Cotton exhibition held in 2018 at Khamir to showcase the work going on in the handloom sector

office, Chennai. When Khamir was asked to appear before the examination committee at Intellectual Property Right (IPR) office, Delhi, the examiner requested weavers to make their own body to claim the GI. Khamir also happily accepted the verdict of examination committee and asked the weavers to register a new weaver's body. All the weavers assembled together at Khamir and formed KWA to claim GI for Kachchh shawls. Many influential weaver leaders joined the process and the registration of KWA as trust and society was done in merely 3-4 months. KWA received the GI in 2011-12. This, while giving them exclusivity and identity, would prevent widespread replication (Kawlra 2014; Clifford, 2015), or so it was hoped. Various awareness programs were organised at Khamir campus and in Bhuj, where GI was discussed. However, it has been difficult to implement the GI as all the weavers of Kachchh are not aware of it, and there is little move by the local administration to ensure its adherence, e.g. by acting against imitations.

In late 2018, the vankar entrepreneur and elder Meghji Harji Vankar became the third president of KWA. He followed up the matter with collector office and asked for their help to spread awareness. He is also focusing on printing the GI logos with serial numbers so that the number of

tags given to each weaver can be tracked. KWA is also planning to write letter to all the concerned departments of Government of Gujarat to ensure that they purchase only genuine shawls. The meeting with collector also lead to the initiatives of marketing shawls through Amazon.

4.3.5 Private ownership of knowledge vs common knowledge

The vanaat motifs, designs and techniques of Kachchh have been considered to be community's identity and common knowledge systems since centuries. Vankars recollect their elders saying that, if you are developing a design and keep it to oneself, then it has no value. It would only be successful if it is shared with the community. This approach should be for yarn, design, technology; it must be useful and accessible to the entire community.

If someone copied somebody else's idea, it was seen with tolerance and justified with the philosophy that a person would get only that much as was written in their destiny. Lot of work was done in collaboration mode between families and self-help groups. But these started disappearing after the earthquake and the weavers began focusing on strengthening their units on a very individual or family basis, similar



Discussion and analysis about various aspects of the study with the weavers, Bhujodi

to trends witnessed in other professions (Kaindl, Goradia and Ramseier, 2016).

Until not so long ago, weavers considered themselves as artisans, with a common *vankar* identity. Now with rise of entrepreneurship and greater commercialisation, the outlook towards this livelihood may be changing, towards more of an individual identity. An indication of this is the recently emerged brand 'Bhujodi sari', with weavers outside Bhujodi questioning the claim of a single village or group of weaver entrepreneurs on a product which uses Kachchhi designs considered to be common to all. Weaver elders are critical of this kind of branding; as Naranbhai Madan Siju said "I have given my carpets the designation of 'Kachchhi dari'. However, observations across handloom practising regions in India show that within a particular region, the area which is more accessible and economically strong gets attached with the main product of the handloom style. For instance, at least 40 villages in Telangana practice *ikat* weaving, but the settlement of Pochampally is most associated, and it has become known as 'Pochampally *ikat*'. Similarly it is with the 'Patan *patola*', which is actually woven well beyond Patan in Rajkot and other Gujarat villages.

Thus, as long as the designs remain a common pool, branding or labelling of certain products after successful areas or entrepreneurs might continue due to the nature of the market unless the community decides to intervene and change the trend.

In our meeting with young weavers at Khamir in June, 2018, they shared with us that the range of designs had increased due to the efforts of artisanal craft schools and NGOs, and there was a competition but it was not a fierce kind. Now with professionalism there is some preference for individualization of designs rather than general sharing¹⁰³. There is also a rising trend amongst youngsters to create their own brands and products. However, there does not appear to be a cut-throat competition in any way, or serious resentment about being copied.

Artisanal craft schools and markets may have had some influence on designs as individual/private knowledge vs. commons. But there is also a process of self-learning and peer to peer sharing still present within the community¹⁰⁴. Some elder core team members mentioned that the attraction to be famous as individual entrepreneurs is a phase in young

¹⁰³ Group meeting, Bhujodi village, December 21, 2017

¹⁰⁴ Meeting with youth, Khamir, June 13, 2018

weavers, and with age they will realise the importance of community and collective identity while dealing with external competitive market. Copying designs is discouraged but weavers do seek inspiration from each other's work¹⁰⁵. Apart from GI which was a collective effort, they have not ventured into the arena of intellectual property rights on their designs.

The issue of privatisation of knowledge is recognised by senior weavers as something the community needs to talk about, to avoid tensions in the future.

4.4 Ecological transformations

4.4.1 Background

Handloom weaving, including in Kachchh, comprises of an intensive engagement of family labour, skill and ingenuity, along with dependence on nature and on other communities and individuals to procure raw materials for making yarn, dye, wood for loom etc. Due to these, compared to power-loom and textile mills, handloom weaving is justifiably described as an autonomous and socio-economically and environmentally sound textile production system (Uzramma 2014; see Annexure 6). But, handloom weaving in Kachchh had gone through different transformations, from being largely local in its entire production and consumption cycle, to significantly higher external linkages including experimenting with new yarns, growing scale of production, and reaching of markets at distant places. Three dominant narratives can be associated with handloom weaving sector in Kachchh:

- i. Change in pattern in use of different types of yarns coming from distant production systems. This is the area where frequent shifts were witnessed in last few decades. Prior to 1976, weavers in Kachchh used to weave products made only from locally

available desi sheep wool, mostly handspun by Rabaris, which is largely replaced by mix of imported merino wool and synthetic acrylic yarn. Cotton based weaving was in small volume mostly by using mill spun yarns. With the closure of many cotton spinning mills in Ahmedabad, off late yarns start coming from different South Indian places mainly from Tamil Nadu and Andhra Pradesh. The first spinning mill, dedicated to short-staple Kala cotton was started in Paddhar village of Kachchh only in 2017.

"The weavers were dependent on the pastoralists to get the wool and farmers for cotton, gradually newer yarn came into the region in the form of acrylic. As the market expanded, weavers started expanding with newer yarns. And simultaneously the relationship with the pastoral communities started weakening." (Shamji Vishram Valji, Bhujodi)

- ii. Change in pattern in use of other resources in different stages of weaving

Khengar Kaka explains, 'earlier we used the local variety of indigo for dyeing. Now most of the raw material for dyeing is coming from outside.' He also suggested that a few other locally available plant species (like *Ingoriyo*, *Keshudo* etc) were used very commonly in yarn dyeing during early days, but not anymore. In Mushroo fabric, a traditional weaver can use up to 22 different colours extracted from natural products¹⁰⁶. Similarly, use of white wheat flour (*maida*) replaced the traditional application of locally available plant (*varath*) juice during the 'sizing' of handspun cotton and wool yarns. The use of iron or aluminium reed-frame has now replaced the traditional wooden frame¹⁰⁷. A major departure is witnessed in yarn making process; for instance, in earlier days, Rabaris used to spin the wool yarn on *takli*, when they are on the move with their herds¹⁰⁸.

¹⁰⁵ Meeting with youth, Khamir, June 13, 2018

¹⁰⁶ Personal communication, Babubhai Ratansingh Vankar, November 21, 2017

¹⁰⁷ Personal communication, Dineshbhai Vishram Siju, Bhujodi, November 21, 2017

¹⁰⁸ Personal communication, Sripal Shah, owner of Asal, a natural products shop in Ahmedabad, December 2, 2017



Traditionally, vankars used wild onion for preparing the yarn for weaving, a practise which has mostly disappeared



Inguri, also known as desert date, a locally available fruit was traditionally used in dyeing processes



Powerloom in one of the weaving clusters, Adhoi



Vankars accessing external markets through exhibitions and festivals

- iii. Change in pattern in economic exchanges i.e. from local to global markets, as explained above. One of the obvious significant changes is the access to international markets for the finished products, especially those made of Kala cotton. Many weavers are regularly attending and selling fabrics in international fairs.

Importantly, these narratives also bring forth different environmental concerns and to understand these, study examined and measured the ecological footprint for a specific context of cotton weaving in Kachchh. Recently, Kachchh witnessed a major shift in cotton weaving when several weavers started using yarns made of Kala cotton¹⁰⁹ (an indigenous variety grown in Kachchh) replacing the contemporary yarns made from hybrid or GMO Bt Cotton. The study, therefore, attempts to examine and compare the ecological footprint of Kala cotton weaving with that of Bt Cotton.

While carbon and water impacts are crucial parts of the EFA, others like the impacts on biodiversity and pollution are also critical, and no attempt has been made to include them in this study.

4.4.2 Environmental concerns

Textile products require or use different types of input during their life-cycle (cradle-to-grave). These include:

- land to produce the fibres, build production facilities and recycling or disposal sites
- freshwater from various sources for different processes
- energy from renewable and non-renewable sources for production and transportation chemicals in the form of pesticides, fertilizers, dye etc.
- plastic and paper for packaging
- machines for different processes, and
- human labour.

These various inputs cause different type and degree of impacts on different components of environment. Some of the environmental concerns associated with textile production include:

- a. the pesticides and other chemicals used during production of cotton, polluting the soil and surface and ground water, and also damaging the native biodiversity
- b. the chemicals used in making and dyeing of yarns and textiles, polluting soil and surface and ground water
- c. overuse of natural resources such as plants for dye and fuel, and water
- d. noise and air pollution caused by different mills and machines
- e. greenhouse gas emissions while transporting the raw materials and final products to different users
- f. solid waste generation during the production, use and disposal of textile products, dyes because of emotional and cultural association with the craft.

The textile sector, whether it is from handloom, power-loom or mills, due to its lengthy value-chain, has potential of causing different types of environmental impacts. In the context of Kachchh handloom sector, therefore, it is important to recognize and assess its influence on environment, especially given the recent changes in use of raw materials, processes of manufacturing and marketing, as mentioned above. Life Cycle Assessment (LCA) and Ecological Footprint (EF) analysis are ways to express the environmental sustainability of rapidly transforming handloom sector (Box 3). Therefore, this study, empirical data on carbon and water footprints are collected to measure the ecological footprints of handloom weaving, using LCA approach.

4.4.3 Value chain of cotton handloom

The value chain of cotton handloom in Kachchh can be traced in five critical stages:

¹⁰⁹ Traditionally, Kala cotton were not used for textile weaving mainly because of non-availability of its yarn, owe to its short fibre length.

Box 3

Life cycle assessment and ecological footprint

Life Cycle Assessment (LCA) is one of the many conceptual approaches which are applied in describing the environmental impacts of handloom sector. The approach actually measures direct & indirect resource inputs and/or emissions during the entire life cycle (i.e. 'cradle to grave') of products (e.g. a fabric) and could cover in its assessment the extraction of raw materials, the production process, transportation, consumption and disposal. This aims to suggest adoption of cleaner technologies and development of institutions to reduce the use of resources and release of pollutants, and thus help environmental management (Muthu, 2014). While the LCA is an approach, it tends to indicate the magnitude of impacts in different terms including the carbon footprint and water footprint which are actually the subsets of a larger indicator- ecological footprint.

The Ecological Footprint (EF) is an indicator that describes the impact of a population (e.g. local, country or global) in terms of requirement of biologically productive land and water to produce the resources it consumes and to absorb part of the waste generated during the entire life-cycle process of a product.

Effectively, LCA and EF complement each other to describe environmental sustainability of the product in terms of carbon and water footprints.

-
- Carbon footprint is the measurement of the amount of greenhouse gases like carbon dioxide, methane, nitrous oxide etc., emitted as a result of human activity. Generally, they are represented in terms of CO₂ equivalent (CO₂Eq)
 - Water footprint quantifies direct and indirect water usage, in volume, by consumption or manufacture of products and associated services

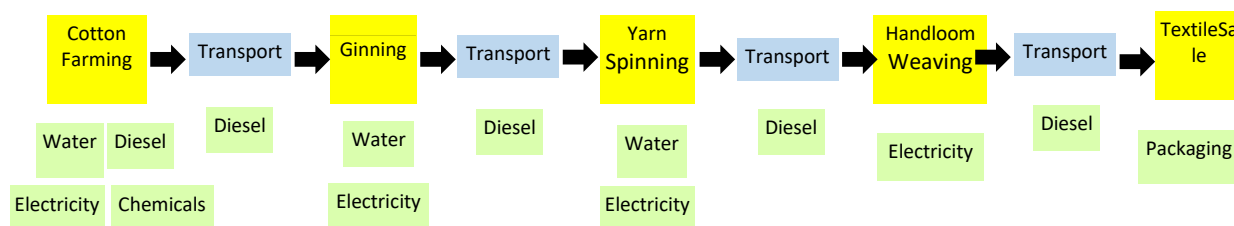


Figure 3: The value chain of cotton handloom and their key ecological footprint contributing elements

- Production of cotton (mainly two varieties- Kala and Bt) at farmer's field
- Production of lint cotton through ginning process i.e. mechanical separation of cotton fibre from the seed-cotton¹¹⁰
- Spinning of cotton to produce yarn, mainly in mills¹¹¹.
- Production of different fabric items by weavers using cotton yarns (of Kala or Bt varieties), different dyes and other production tools. (see Box 4)
- Marketing of finished products at different locations within and outside country.

¹¹⁰ Seed-cotton is the term generally used for the harvested cotton which is mixed with seeds

¹¹¹ Although cotton yarns are also made by hand spinning, mainly by using the charkha. However, only in case of Khadi handloom, hand-spun cotton yarn is used. Kutchi weavers are not using hand-spun cotton yarns

A brief account of each of these stages of cotton handloom value chain in Kachchh is presented in Annexure 7. At each of these stages of the value chain, footprints are added mostly through energy and water uses, impact on biodiversity,

pollution and waste creation. The entire value chain and key areas of energy and water use (not covering the other impacts) are presented in Figure 3 (Nigam et al 2016).

Box 4

Important production tools and inputs

Handloom weaving has a long history in Kachchh, and is connected with the vast, arid landscape of the region. Everything, starting from the production tools to the materials put into weaving, were earlier locally procured. Here is a list of things that weavers were traditionally collecting from the surrounding landscape:

- Varath (or Jangli dungri), a locally available tuberous plant (probably a species of genus *Dipcadi*), is traditionally used for starching or sizing purpose. While the sizing by varath leaves a bad odour on yarn, it is very effective in protecting the yarn from insects. Therefore, earlier it was essential to use *Varath* on hand spun yarns of Kala cotton or desi wool. But, of late, very few weavers use desi wool yarn. *Varath* is mostly found in small stony or rocky hillocks with poor soil condition. Although during the study many weavers reported that the natural population of this species is quite stable in the region, very few use varath for reasons of convenience or because yarns in use now do not necessarily need the insecticidal quality of varath. Instead, it is replaced by flour of rice, and wheat (maida) in that preferential order.
- Killori, a brush used during the sizing process, is made of roots of some plant species. Weavers reported that the brushes are made by only few persons mostly settled in Saurashtra. The Killori brush lasts very long, sometime even 30 years.
- Godi, a wooden stand used for starching or sizing purpose, is made of locally available tree species, including of the exotic tree ganda baval (*Prosopis juliflora*).
- Looms are mostly made by using local materials like wood of neem, desi babul or baval (*Acacia nilotica*) and ganda baval (*Prosopis juliflora*). Considering that it needs precise measurements to make looms, they are made by only those carpenters who are well versed with the dimensions of different parts of the loom. The looms are made by carpenters but under supervision of weavers.
- Leaves and bark of baawad or desi babul (*Acacia nilotica*) was used in getting black colour dye and was extensively used for dyeing the Rabari skirts. With time, this species is difficult to find, extensively displaced by gando bawal (*Prosopis Juliflora*).
- Aawad (*Senna auriculata*), a very commonly found plant species in Kutch, produces a brown colour dye from its flower. The practice of extraction of dye from this plant has reduced significantly.
- Plants of *Indigofera tinctoria* produce the most widely used blue dyes, the famous indigo. In earlier days, this was the main dye used in yarn and fabric colouring but with the availability of synthetic indigo, use of this natural source of dye declined. In Kutch the plant is increasingly rare.
- Ingori (*Balenites aegyptica*), keshudo (*Butea monosperma*), genda (*Tagetes erecta*) are locally available plants which are used in extracting natural dyes. Fewer people are now extracting these dyes.

Source: Personal communication with weavers

Table 2: Key ecological footprint issues across the cotton weaving value chain

| Value chain stage | Key ecological footprint causing factors | Footprint measure | | |
|---------------------------|--|-------------------|-------|---------------|
| | | GHG | Water | Bio-diversity |
| Cotton cultivation | Chemical, fertilizer, water & energy use, fuel for transportation, biodiversity value | √ | √ | √ |
| Ginning or lint producing | Energy use, fuel for transportation | √ | | |
| Spinning or yarn making | Energy & water use, fuel for transportation | √ | √ | |
| Weaving or fabric making | Dye use (chemical & natural), water use, energy use, transportation, use of other natural bio-products | √ | √ | √ |
| Sale or marketing | Packaging material use, fuel for transportation | √ | | |

4.4.4 Ecological footprint assessment

In this study, the ecological footprint of Kala and Bt cotton based handloom weaving is estimated using Life Cycle Assessment approach covering all the five stages of the value chain viz. cotton cultivation, ginning, spinning (or yarn making), weaving of fabrics and the sale or marketing of finished products. All these entail different types of activities which create ecological footprints of different types. Thus, while the use of chemicals, water, energy (mainly electricity) and fuel (mainly for transportation) are key causative factors, shift in use of different botanical resources during the entire value chain also contributes to the ecological footprint. In this study, two key aspects of ecological footprint are considered¹¹². (Table 2):

- **Green House Gas (GHG) emission (carbon footprint).** The carbon footprint is expressed in terms of CO₂Eq (carbon dioxide equivalent)
- **Water footprint.** This is expressed as water volume per product unit (e.g. litres /kg), and can be divided into two major types, the green and blue¹¹³.

Approach

In the value chain of Kala and Bt cotton based handloom textile, the method of cotton production differs significantly in terms of irrigation and other inputs, creating vastly different ecological footprints. The ginning and the spinning processes, however, show little variation as methods and machines are more or less standardized and similar for the two cotton varieties. The production of handloom fabrics by weavers differ significantly, especially in terms of use of different motifs and designs, yarns (e.g. cotton, silk, viscose etc.) and dyeing agents (e.g. chemical or natural). Due to combination of these factors there is wide variation in the products and capturing variations in value chain is complex.

Thus, in order to measure the ecological footprint of handloom cotton weaving, we undertook 'case-studies' for each stage of value chain to measure carbon and water footprints. The case studies are meant to derive numbers and information through interviews of few individuals representing different segments of value chain including the cotton farmers, ginners, spinners, dye manufacturer and weavers. The specific aspects of the footprint of each case study, and the measurement tools used for each, are presented below (Table 3).

¹¹² In addition to GHG and water footprint, it is also recognized that cotton handloom value chain has some effect on local biodiversity values, or cause environmental impacts due to pollution and waste creation. However, due to paucity of data and time to undertake any field based assessment, these are not explored under this study. But, wherever necessary it was reported and discussed in qualitative terms.

¹¹³ Green water is the rainwater that falls on the fields and has been used mainly by trees and crops. Blue water is the water that is drawn from rivers, wells and groundwater for irrigation and other purposes. The blue water use is considered important while measuring the water footprint. In ecological footprint literature there is another category of water, grey water, which is the amount of fresh water required to assimilate pollutants to meet specific water quality standards.

Table 3: Approach of footprint measurement across the value chain stages

| Value chain stage | Case studies | Ecological footprint aspects | Estimation method/tool |
|-------------------|---|---|---|
| Cotton production | Seven cotton growers from Kachchh & North Gujarat. <ul style="list-style-type: none"> 4 cases of Kala & 3 cases of Bt cotton cultivation | Energy & fuel use & green and blue water use in producing one kg of seed cotton in Kala & Bt cotton system and transport to ginning mill. | Online tool - Cool Farm Tool (CFT) (www.coolfarmtool.org). |
| Cotton ginning | Two ginning plants <ul style="list-style-type: none"> Patel Ginning Mill (in Sami) Paddhar Gining Mill, Kachchh | Energy use in producing one kg of lint cotton & transportation to spinning mill. | 1 KWH of grid electricity use = 0.62kg of CO ₂ Eq |
| Cotton spinning | One spinning mill <ul style="list-style-type: none"> Paddhar Spinning mill, Kachchh Published Report | Energy use in producing one kg cotton yarn | 1 litre of diesel use = 2.79 kg of CO ₂ Eq Transportation related carbon footprint of different items (in kg) to different places (in km) by different modes (truck, ship, air etc.) estimated using the provisions given in CFT. |
| Yarn dye unit | One cotton yarn dyeing unit <ul style="list-style-type: none"> RSL Dyeing, Ahmedabad | Energy and water use in dyeing one kg of cotton yarn | |
| Weaver | <ul style="list-style-type: none"> 4 weavers from Kachchh making textile & products from both Kala and Bt cotton yarns Khamir making textile products only from Kala cotton and using only natural dyes | Water use for dyeing and washing one kg yarn. Fuel use for transportation of one kg products of Kala and other cotton for different points of sale. | Water use: Direct measurement (in litre) for different purposes. |

In the study, the functional unit of footprint analysis is 'one kg of cotton yarn' consumed in weaving. While the fabric produced by weavers goes to different end-users, the study limits its estimate of footprints (of one kg of fabric) till it reaches its first buyer (i.e. first point of sale)¹¹⁴.

In the present study, the ecological footprint of handloom product is defined as the sum of the footprint of different activities required to complete the different stages of the value chain. The carbon and water footprints are measured separately.

For this, two numbers are very critical. First, the carbon or water footprint of one kg of 'cotton end product (CEP)' at each stage of value chain¹¹⁵. In this study, these numbers are derived through 'case-studies' and represented in kg CO₂Eq per kg of CEP or litre per kg of CEP. Second, the appropriate allocation of cotton mass for

different stages of the value chain. This means that if a weaver needs one kg of cotton yarn for weaving, the farmers (the cotton producer) need to produce much more than 1 kg of cotton and only then through the process of ginning and spinning, where a lot of cotton mass is lost, one kg of yarn gets produced. The processing related losses of cotton during its movement from one stage of value chain to another are derived from the case studies and record the following:

- Seed cotton (farmer produce) to lint-cotton (ginning): 33.5 to 34.5%
- Lint-cotton to cotton yarn (spinning): 2%
- Cotton yarn to weaver: 1%

Thus, footprint assessment of, say 1000 kg of cotton fabric, needs to account for different masses of CEP in for other levels of the value chain adjusting the losses. Figure 4 depicts such mass reallocation of CEPs at different stages of

¹¹⁴ In this study, however, we did not include the footprint estimation at final disposal stage, i.e. when the fabric/textile products are thrown, recycled, or otherwise disposed of by consumers.

¹¹⁵ Cotton end product in each stage of value chain varies. Thus, while at farmer's level CEP is the seed-cotton they produce, at ginning mill and spinning mill level it is the lint cotton and the yarn, respectively. At weaver level CEP is the final fabric woven and sold.

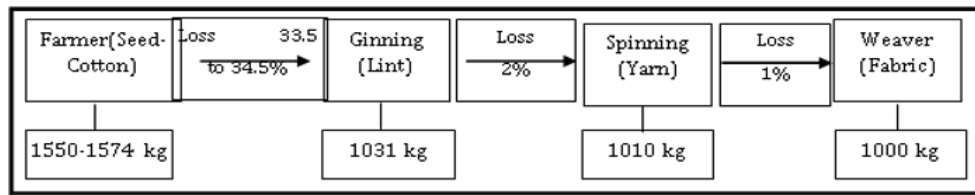


Figure 4: Schematic diagram showing allocation of cotton mass at different stages of value chain

Table 4: Carbon and water footprint of different cotton production Systems

| Cotton Production System | Avg. Production (kg / Acre) | EFP (Per kg of cotton production) | | |
|--------------------------|-----------------------------|-----------------------------------|---------------------|--------------------|
| | | CO ₂ Eq (kg) | Green Water (Litre) | Blue Water (Litre) |
| Kala-Rainfed | 692 | 0.66 | 2094 | 0 |
| Kala-Irrigated | 1247 | 1.84 | 1026 | 421 |
| Bt-Irrigated | 1382 | 4.12 | 760 | 1156 |

the value chain. Accordingly, making of 1000 kg of cotton fabric requires production of 1550 to 1575 kg of seed cotton.

Finally, in order to estimate the overall ecological footprint of different weavers, reallocated CEPs (in Kg) at each stage of the value chain are multiplied by respective footprint values and added. Such weighted sums represent the total carbon or water footprint of handloom weaving.

Results

a. Value chain stages

Based on the above case studies, the study measured and presented the carbon and water footprint at each stage of the value chain and then finally attributed these values to the weavers.

Cotton Production: Based on the information provided by seven farmers (a brief description of farmers is presented in Annexure 8), covering three different types of cotton production system, the irrigated Bt system recorded almost

seven fold more carbon footprint than the rainfed Kala system, and over twice that of irrigated Kala (Table 4). The blue water footprint of Bt cotton production was also much more than of Kala cotton; the green water footprint, conversely, was less, but it needs to be kept in mind that this is rainfall, entailing no human artefact unlike with irrigation. The major difference across the farming types is mainly attributed to chemical inputs and ground water pumping for irrigation purpose.

Cotton Ginning: Based on the case study of ginning mills which process both Kala and Bt cotton, there is not much difference in carbon footprint of ginning of one kg of lint cotton production of Kala (0.196 kg CO₂Eq) and that of Bt (0.148 kg CO₂Eq). The slightly higher values in Kala are due to additional energy use for foaling (i.e. removing of bracts).

Yarn Spinning: Measuring the carbon footprint of spinning mills was very difficult given resource constraints of this study and, therefore, we used published data of an Indian spinning mill (Nigam et al, 2016)¹¹⁶. Accordingly, use of grid electricity

¹¹⁶ Nigam et al, op cit.

Table 5: Carbon and water footprint of weaving and marketing process of different weavers

| Weaver | Kala cotton | | | Bt cotton | | |
|--------------|------------------------------|--------------------------------|----------------------|------------------------------|--------------------------------|----------------------|
| | Annual Turnover of Yarn (kg) | Footprint | | Annual Turnover of Yarn (kg) | Footprint | |
| | | CO ₂ Eq (kg per kg) | Water (Litre per kg) | | CO ₂ Eq (kg per kg) | Water (Litre per kg) |
| Shamjibhai | 5000 | 0.91 | 30.5 | 4500 | 0.55 | 19.5 |
| Chamanbhai | 400 | 1.48 | 4.9 | 200 | 1.25 | 65.0 |
| Ramesh | 250 | 1.15 | 8.8 | 500 | 1.03 | 18.0 |
| Lalji Vankar | 5 | 0.69 | 0.0 | 30 | 1.04 | 65.0 |
| Khamir | 9078 | 0.79 | 1.0 | NA | NA | NA |

and diesel generation sets for spinning and material used for packaging account for a total of 2.2348 kg CO₂Eq emission per kg of yarn produced.

Textile Weaving and Marketing: The handloom weaving, as such, is a human labour dominated activity. However, transportation of yarn and dyeing process cause GHG emissions and consume a large quantity of water. The process of fabric making and marketing of the product varies from one weaver to another, and thus emission also varies. Case studies of four weavers and of Khamir indicate that total emission and water consumption varies across the cotton types and individual weavers (Table 5). It is also recorded that marketing of Kala cotton products causes slightly higher average GHG emission (0.26 kg CO₂Eq) per kg of cotton handling by weavers compared to Bt cotton products (0.18 kg CO₂Eq). The major reason for such difference is because of increasing demand of Kala cotton based textiles in both foreign countries as well as within Indian metro cities, which adds transportation linked GHG emission.

b. Overall footprint

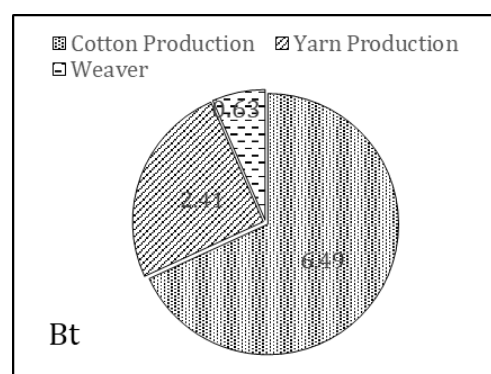
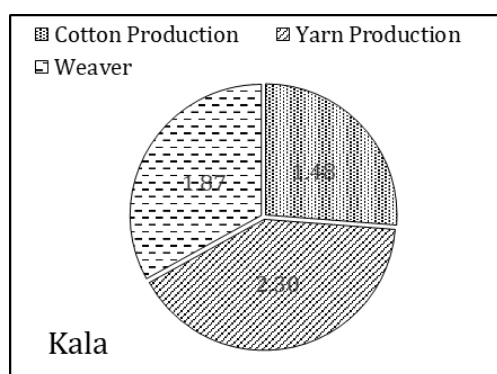
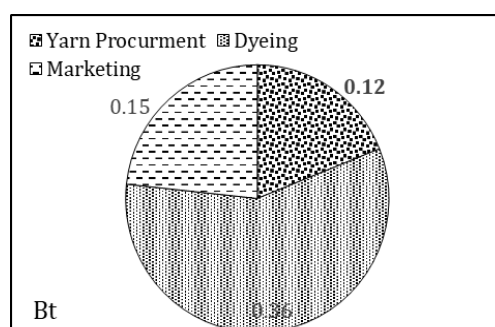
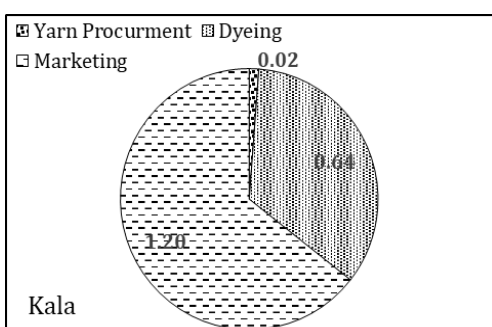
The above estimates represent separately the carbon and water footprints of different stages of Kala and Bt cotton value chains. However, for a total footprint measurement of handloom weaving, these estimates of carbon emission (in terms of CO₂Eq kg per kg) and water consumption (in terms of litre per kg) need to be attributed to the handloom weavers (refer

Section 3.1). Only after such attribution of values and adding those to weavers, the comparison of carbon and water footprints can be made between Kala and Bt cotton based weaving system. The computation of attribution of carbon (CO₂Eq) and water (in litres) to the weavers is given in Annexures 9 and 10, respectively. It is clearly observed that for all weavers, Kala cotton value chain creates almost half the amount of carbon footprint (CO₂Eq avg. 5.08 kg per kg of cotton use by weavers) than of Bt cotton value chain (CO₂Eq avg. 9.96 kg per kg) (Table 6). Similarly, in case of water, Kala cotton value chain has almost ten times less footprint than that of Bt cotton.

Considering the fact that each weaver has its own weaving and marketing system, there are variations in terms of volume they handle, the yarn procurement, dyeing preferences, marketing channels etc. Cumulatively, these suggest that the cotton handloom value chain has vastly different footprints for the two cotton types, Kala and Bt. However, it is necessary to understand which are the major contributing sources of footprint, at least at aggregate level, for the two cotton types. Data clearly showed that in case of Bt cotton based value chain, cotton production contributes maximum carbon footprint, compared to yarn production process (i.e. ginning + spinning). However, in case of Kala cotton maximum carbon contribution comes from yarn production processes (Figure 5). It is interesting to note that at weaver's end, Kala emits significantly more carbon than in Bt cotton value chain.

Table 6: Carbon and water footprint attributed to weavers for Kala and Bt cotton based value chain

| Weaver | CO ₂ Eq per kg of cotton value chain attributed to weaver (kg/kg) | | Blue water use per kg of cotton value chain attributed to weaver (litre/kg) | |
|----------------|--|-------------|---|-------------|
| | Kala | Bt | Kala | Bt |
| Shamjibhai | 4.85 | 9.45 | 194 | 1838 |
| Chamanbhai | 5.42 | 10.15 | 168 | 1884 |
| Ramesh | 5.09 | 9.94 | 172 | 1837 |
| Lalji Vankar | 4.63 | 10.30 | 163 | 1884 |
| Khamir | 5.43 | NA | 146 | NA |
| Average | 5.08 | 9.96 | 169 | 1860 |

Fig. 5: Different sources of carbon footprint (CO₂Eq in kg/kg of cotton turnover) in overall Kala and Bt cotton value-chainFig. 6: Different sources of carbon footprint (CO₂Eq in kg/kg of cotton turnover) at weaver's end for Kala and Bt cotton value-chain.

Disaggregation of weaver's direct contribution in carbon emission into different element of weaving (i.e. procuring and dyeing of yarns and weaving and marketing of textile) indicate that high value of carbon emission in Kala mainly owe to marketing of finished products in foreign countries (Figure 6). It is also clearly recorded that in both the cotton types, dyeing of yarn contributes significantly into carbon footprint. As expected, the yarn procurement of Kala cotton

(mainly from Paddhar or Khamir) has very small contribution, compared to the yarn of Bt cotton.

4.4.5 Discussion

Since this study is rather exploratory in its nature, there are limitations in estimating both carbon and water footprint. For example, it does not include the footprint of manufacturing of supplementary products like pesticide and fertilizer in cotton production or chemical dyes.

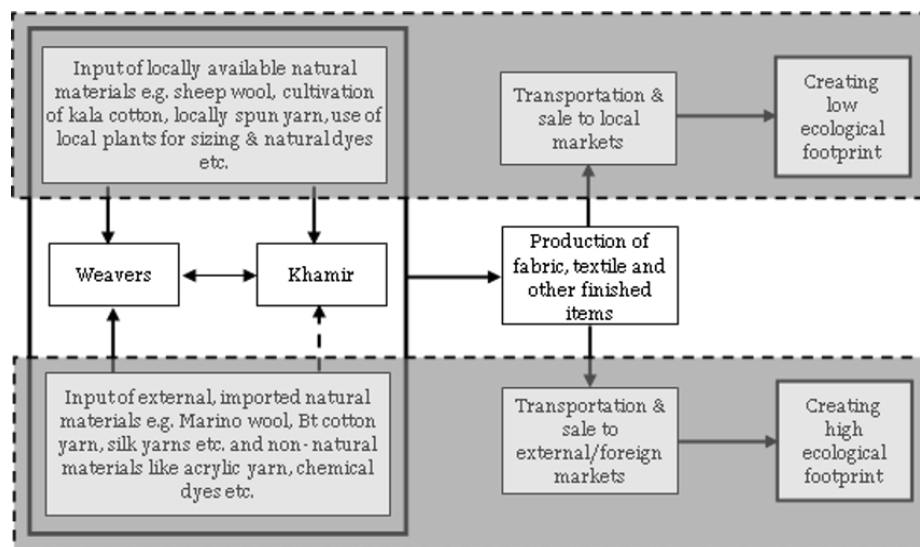


Figure 7: Schematic diagram representing the key aspects of the ecological footprint of handloom weaving in Kachchh. Solid arrows represent direct relationship, while the broken arrow indicates relationship is incomplete. The broken box presents a set of factors leading to the footprint.

Although, studies elsewhere clearly suggest that use of pesticide and chemical dyes is one of the most hazardous activities to the environment mainly in form of soil and water pollution, affecting terrestrial and aquatic biodiversity as also human health (der Werf 1996; Arias-Estévez et al 2008; Hassaan and El Nemr 2017). Thus, shifting to organic Kala cotton and renewed use of natural dyes, though still at an early stage, is a positive indication in cotton handloom weaving in Kachchh.

Unfolding the paradigm of 'environmentally sound' products, handloom is more preferred in terms of its production process. But the question remains, what kind of handloom products have lesser environmental impact? To explore more, the study indicates that the low input cotton production, and promotion of local consumption of handloom products may be the best choice in terms of environmental consequences. A schematic presentation of the ecological footprint of the handloom sector in Kachchh is presented in Figure 7.

There are various studies conducted and evaluation methods developed to look into the environmental sustainability of industrial textile. Apparel and textile industries have to abide by legal systems to reduce the water and carbon footprint. This kind of regulation is not developed for handloom weaving primarily because as an activity weaving is decentralised, has lower production and consumes minimal energy on the

loom. However, with the ecological awareness rising among the consumers, there is a need to understand it better. Beginning from the process of production of raw material used in weaving till the marketing, the whole value chain comes in the purview of ecological sustainability.

In the context of Kachchh weaving, in order to keep continuing the heritage of weaving and creating attractive livelihood options, reaching global market came as a trade-off. Along with this, an initiative like Padhdhar mill for spinning Kala cotton reduces the carbon footprint due to localisation of at least one crucial activity. Interventions such as Kala cotton and sheep wool are an attempt to revive the local production chain which further reduces the footprint of weaving.

4.5 Political transformations

There appears to be little or no linkage between weaving as a livelihood and the transformation it is undergoing, and the political aspects of the vankar's lives. A striking phenomenon is the absence or very weak manifestation of collective mobilisation relating to weaving in Kachchh, as compared to many other parts of India where weavers have collectivised as cooperatives, or as associations to take up advocacy on policy issues relating to their occupation. The last major mobilisation appears to have been around the time of India's independence, when shortage of yarn was taken up as an issue affecting

weaving. A cooperative of vankars did exist in the latter part of the 20th century, but became non-functional reportedly due to internal dynamics and mismanagement, and has never been revived. Even on issues that had a significant impact on their lives, such as the imposition of high taxes under the Goods and Services Tax (GST) policy of the current central government, or of the 'demonetisation' of high-currency notes that took place in late 2016, there was no collective mobilisation. There is also no sign of collectivisation amongst the job workers to seek better working conditions (especially where still suffering from obvious exploitation), or gather resources to access markets directly and thereby become entrepreneurs themselves. This is partly also due to the fact that the relationship between the two classes of weavers is not only of employer-employee, but also a complex of social bonds, loyalty, a feeling of being indebted due to entrepreneur weavers having helped out in times of social or personal crisis, and so on. This has traditionally also been a significant part of India's caste system (*jajmani* relations of patronage), which has elements of mutual benefit but from a class analysis could be said to be a more subtle form of exploitation.

This absence of what could be called 'non-party political process' amongst the vankars could be explained as an outcome of their individualised business tradition (which is strong amongst many communities in Gujarat, who are well-known for their entrepreneurial skills in many parts of the world!), the general sense that as businessmen they will scrape through one way or the other, and a non-confrontational culture. There may also be a more structural socio-cultural reason, with the many years of social oppression and livelihood struggles reducing the capacity to organise (though there was no articulation to this effect during the study). There is also the issue of how an institutional body like an association of weavers could affect the individual innovativeness and entrepreneurship that currently exists ... or enhance it?

There is also little or no linkage between vanaat as an occupation, and the electoral and party political process, from local to national level. A number of vankars have been in or currently occupy positions in local panchayats, district level bodies, etc, but this does not seem to be an

outcome of their status as vankars or their increased economic status, and conversely their position is not used to enhance the prospects of vankars as weavers in village or larger society. Some Panchayat members and Sarpanches expressed that in their position, they would act for the benefit of all communities, not vankars in particular.

The linkages between state policy and the vankars are also weak. While in the late 20th century government policies (such as reservation for the handloom sector) and programmes (such as subsidies, or state procurement of handloom products) played a significant role, this appears to have diminished more recently, though some state institutions like Gurjari continue to do procurement (see Annexure 11 for policies and schemes relevant to weaving). Indeed the examples of GST and demonetisation mentioned above, apart from the lackadaisical attempts by the government to reserve certain kinds of cloth production to the handloom and small-scale sector, suggest that the macro-policy environment has become even less conducive to handloom weaving (as to handicrafts in general). The vankars are accessing the market, with civil society organisations playing a key role in facilitating the value chain, and the state's role has receded into the background.

One recent change in this mentioned by several vankars is the issuing of weaver identity cards, after several years of promises, which are supposed to help them access general government schemes as also those meant for artisans, more efficiently. The community has recently been given an Aadhaar-enabled identity card by the Development Commissioner (Handlooms), which they can use to access government schemes, and direct benefit transfer promised by the government.

As an interesting offshoot of this study, and of a related visit to Himachal Pradesh by some members of the core study vankar team, discussion within the community to revive the weavers' cooperative has been strengthened. Additionally, the Kachchh Weavers Association, dormant for some time now, has been re-activated (see below under 'Knowledge, creativity, innovations'), which may enable greater political mobilisation amongst vankars for livelihoods issues.

5. Key Findings, Lessons and Reflections

5.1 General findings

It is important to note that many of the changes and transformations seen during the course of the study, are very recent, and no conclusion can be derived about their trajectory and sustainability. It will be interesting to see what directions they take, both for the vankar community and vanaat in Kachchh, as also for lessons relevant to weaving or craft elsewhere in India. Within this overall caveat, however, some broad conclusions can be reached as follows.

A general sense of well-being appears to have increased amongst the vankars in the 15 villages studied, especially relative to the period immediately after the earthquake in 2001, and this is closely linked to the revival of vanaat as a livelihood. Several vankars (especially but not only entrepreneurs, and including youth) mentioned their preference for weaving due to 'freedom' and autonomy it gives them, and the return of several young people into vanaat is a clear sign that the craft is doing well and attracting even those who could get other jobs. The ability and even preference of many vankars to stay back in (or return to) their villages, counter to the dominant narrative that enjoins oppressed castes and classes and especially Dalits to head to the city, has been enabled by a combination of enhanced economic opportunities within weaving itself, improved social status and a significant increase in contact with the outside world, the availability of communications and other technologies enabling 'urban-like' access and facilities. Combined with clear and consistent narrative on the reduction in casteism (esp. its worst forms of untouchability), greater contact with outside world, a visible sense of pride and dignity in their lives and livelihoods, and other factors, increase in well-being appears to be widespread in the villages that were shortlisted for the study.

To elaborate one of the above aspects: the revival of handloom weaving, while critically reliant on the existence of a market (local or

national/global), is seen as a phenomenon with inter-related economic, social, cultural, emotional, intellectual elements and meanings. It is not merely a 'job'. The study recorded repeated assertions of the fact that vankars, including youth, were in it not only because of the income, but also because it provided them autonomy (control over means of production as a crucial element of this), freedom (in terms of aspects like when and how long to work), continued family and social connections since production was at home and involved the whole household, space for innovation and expression of creativity, identity (as a community, as a distinct craft identified by a unique Kachchh design), comfort compared to many other occupations they had access to (e.g. agricultural and industrial labour), a chance to express a spiritual responsibility (with vanaat skills being 'god's gift'), and other such non-economic aspects. Weaving (like most crafts, which are necessarily meant for trade and not only subsistence) does not appear to be an alienated form of labour for a substantial part of the community.

The complex of above elements could be seen as comprising the unique identity of the Kachchhi vankars; it is an identity with strong continuations from the past but also significant aspects of the present, with resilience, innovation and creativity, social and family bonds, the ability to hybridise the past with the present and future, and pride in the craft heritage as a not only economic but also culturally important.

This narrative suggests that even though the occupation is linked inextricably to the market, it has not undergone the transformation into commodification and alienation as envisaged by Marx (1844)¹¹⁷. Or in other words, the craftsperson's labour has not been alienated from him/her. This has to do with many factors: the means of production, especially the loom, remains in the ownership or control of the producer family, even in the case of many job workers (though certainly not all, see below); even the product is at least partly in his/her

¹¹⁷ As cited in https://en.wikipedia.org/wiki/Marx%27s_theory_of_alienation#cite_note-2

control in that he/she can express creativity in it, and there is negotiating power over its value in the market; the weaver is able to see and control most of the process towards the finished product within the family rather than be a small cog in an industrial mass production system with extreme division of labour; and additionally a worldview that holds weaving as not only a commercial activity but also a cultural one, with important emotional, psychological, affective aspects. Indeed the alienation that many youth felt when joining other industries (many expressed how they were not in control of their time or of production there), seems to have been a major cause for coming back to weaving where they have a sense of ownership and belonging. A similar point could be made with regard to the dignity of labour that is evidently present in weaving (compared to other jobs as labourers in industry, construction etc), which Gandhi emphasised as a crucial aspect of human fulfilment in various scattered texts or lectures¹¹⁸, and especially where the act of weaving encompasses both physical and intellectual labour. To quote Prakash Naranbhai Vankar, a young weaver of Bhujodi, “my loom is my computer; I have to continuously think, innovate, it is not only mechanical”. Finally, it also points to a worldview that stresses less on the cold ‘efficiency’ of modern industrial life and more on a multi-dimensional ‘sufficiency’ paradigm where workers are not necessarily seeking to (or forced to) maximise productivity but rather also take into account what is enjoyable, self-governing, and creative (Bakshi 2017). The complex relationship between crafts (and the associated skills and knowledge), market, modernisation, and alienation (or the lack of it) has been well-brought out in studies in other sectors, such as artisanal fisheries by Sundar (2018).

However, this is by no means universal. Several job workers expressed dissatisfaction with their economic and social life; some were clearly in distress, with signs of alienation and loss of dignity. There are marked geographic and class inequities amongst the vankars. Preliminary observations from the larger contextual survey being carried out across Kachchh (mentioned in

the Introduction), suggest that a considerable section of the vankar community outside of the studied 15 villages is still facing several challenges. These include livelihood insecurity, where the enablers of transformation (mentioned below) have not been active.

Additionally, while vankars have been able to often define or create a market rather than only responding to it, this does not necessarily change the fact that the revival is dependent primarily on external (including foreign) markets¹¹⁹, with its own issues of vulnerability¹²⁰, absence of (or only weak) challenge to macro-economic and class inequalities both locally and in larger society, absence of a challenge to capitalism as a system, and (as described below), some negative ecological ramifications.

Along with the revival of vanaat has come a greater ecological footprint, in particular due to the significantly greater transportation of raw materials and of woven products to consumers in other parts of India and abroad. This is a common thread in handloom clusters across the country. Interventions to try to make the craft ecologically more sensitive, e.g. through promotion of organic cotton and natural dyes, provide a counter-trend. The specific case of Kala cotton is interesting in providing these contradictory trends, with very low ecological impact of production but very high impact on the consumption side.

A historical time-line of changes taking place in the vankar community with respect to weaving and associated elements, suggests that transformations in the economic sphere have a significant bearing on those in other spheres of life. This does not of course mean that in all cases of transformation, the economic sphere is predominant or primary; conceivably in other situations a process of social or cultural or political transformation could drive economic transformation. And indeed even in the case of the vankars, the economic transformation itself involved or was influenced by a number of factors, including institutional and civil society interventions.

Figure 8 below presents the key findings.

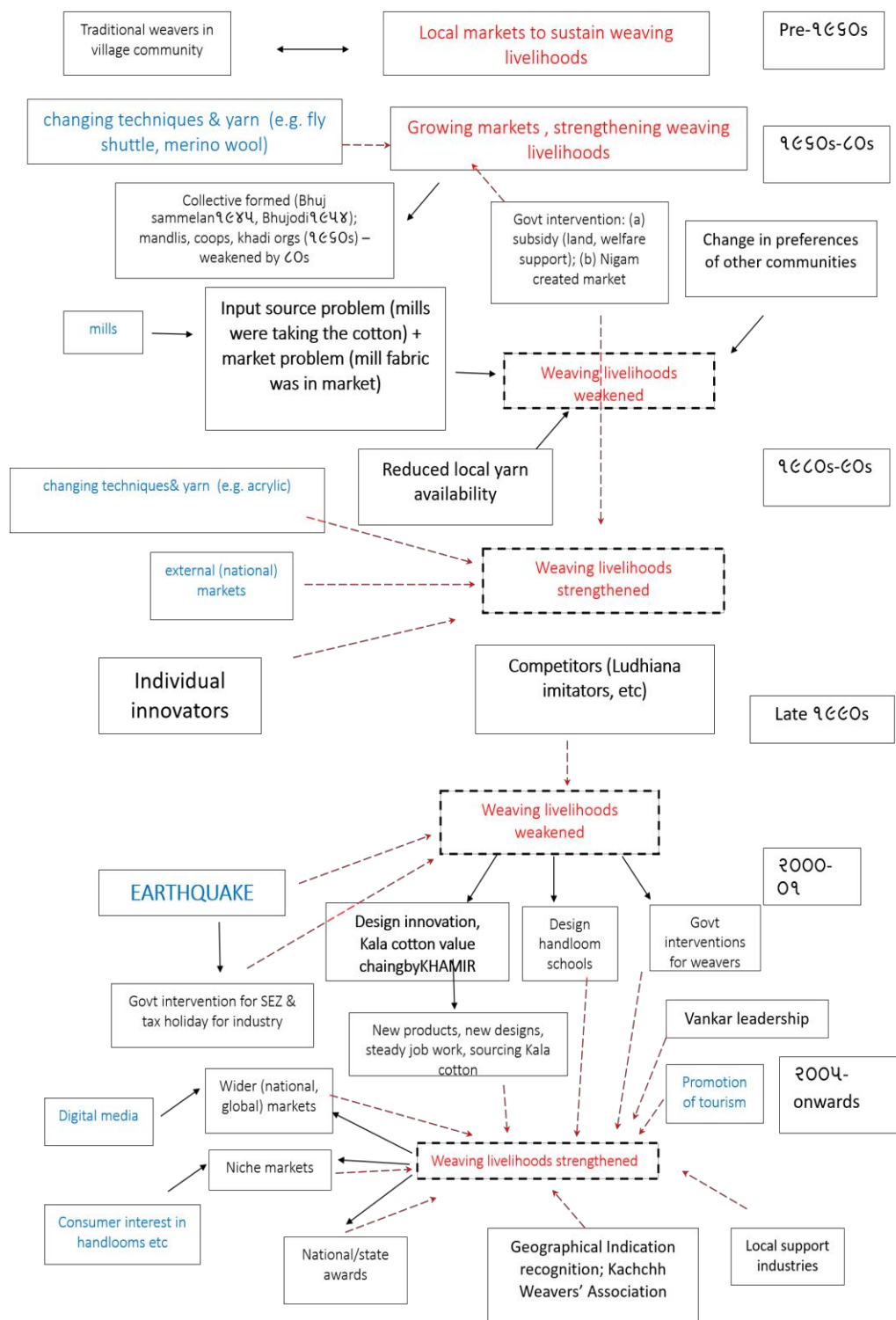
¹¹⁸ <http://gandhiashramsevagram.org/voice-of-truth/gandhiji-on-dignity-of-labour-bread-labour.php>

¹¹⁹ Especially in the case of Kala cotton products; there is still a substantial local market in acrylic products.

¹²⁰ History is riddled with examples (vanilla, coffee, quinoa, and many many more) of the vulnerability of people dependent on external markets which they have no control or even influence over.

Figure 8

NARRATIVE OF LIVELIHOODS TRANSFORMATION AMONGST KACHCHH WEAVERS



5.2 Enablers of transformation

There have been various reasons that contributed to the transformations – both to weavers' economic upliftment and revival of weaving as viable livelihood. Introduction of fly shuttle helped increase productivity two fold along with facilitating increase in fabric width¹²¹. According to senior weaver Meghji Harji Vankar, 1982 seems to be a year of change, when meghwals started weaving, shifting to weaving for livelihood instead of taking up labour work either on farms or with drought relief programs.

One of the main agents of change has been fiber – a softer, lighter merino wool replaced the coarser desi wool which opened up external markets, introduction of acrylic that lowered product costs and more recently cotton, and Kala cotton that catered to a larger market base. Using cotton and wool as two fiber options opened up the possibility of catering to markets throughout the year. Currently, in these 15 villages, weavers use wool, cotton, Kala cotton, experimenting with silk and linen, to weave a range of products. More recent is the come back to desi wool, thanks to Khamir's sheep wool project.

Introduction of cotton & Kala cotton¹²² have played a significant role. Khamir took the risk of investing in, experimenting with and putting out Kala cotton as fiber, product and brand. Innovative weavers like Shamji Vishram Siju took forward cotton and Kala cotton. The ever-entrepreneurial Kachchh weaver accessed cotton yarn from a local Khatri who brings in rejected yarn, rewinds and sells for bandhani ties. This influenced cotton count (2/60s, 2/80s) and color of yarn used by weavers for saris. The Kachchh weaver entrepreneurs cashed in on weaving the sari - saris in wool, tussar, and cotton – linen are part of the current product range. Keeping the USP as the extra weft for

product differentiation, the 'Kachchhi' sari has come into its own.

Combination of the inherent entrepreneurial spirit of the Kachchh vankars who have adapted to various fibers and market shifts with much agility, along with interventions by development and design organizations has created and nurtured a rich ecosystem within which these artisans live and work. A larger weaver base, rather than only the first families of handloom, has benefitted from information dissemination made possible through technologies like internet, social media and livelihood, development initiatives by Khamir & artisanal craft schools. Opening up of this larger weaver base, who access markets directly or work with organizations that provide equal opportunities and fair wage, have enabled a certain stabilization of income in these villages. This stabilization of income has in turn created the space for weavers to experiment, be creative and access remunerative markets. Geographical proximity to Bhuj and exposure to external resources have also played important roles.

Parallel to this, is the opening up of national and international markets that value, pay and invest in the handmade story, the upsurge of the sari as aspirational¹²³, handloom as fashion, as environmentally friendly, as sustainable, have contributed. Through this period of transition, marketing platforms provided by HastKala Nigam, Dastkar, Paramparik Karigar, Jaypore, Khamir, the artisanal schools, etc. have provided exposure – both for the outside world to understand the richness of the practice and for the artisans to access different platforms. This has brought in national and international designers, who have taken Kachchh crafts and handlooms to a wider audience.

Innovations and initiating changes in the sector have also been spearheaded by individuals – Prabha Shah in the 1970s, Vijaya Kotak, in her

¹²¹ In 1959 they got fly shuttle from Ahmedabad. There was 200% increase in production. Merino wool was also introduced in the next couple of years which enabled accessing distant markets that demanded larger width, light, soft wool (Fifth meeting, Aug 2017). Shri Hamir Madan, Murji Hamir's father, played an instrumental role in introducing fly shuttle looms in villages like Bandara. It was first introduced in the house of Aalu Viram. The weavers and villagers were so curious that they were visiting the house to see the looms. The weavers were finding it difficult to open the bobbins. Slowly they became used to these looms and weaving became faster than earlier (Personal communication, GhatitLaheru, Khamir, July 10, 2018)

¹²² Earlier Kala cotton was woven in Kutch as yardage for men & dhurries but not as the scale used today. It was never woven for an external market, especially in the scale that is woven currently.

¹²³ Sari as a product, never woven in Kutch, has become a primary product along with dupattas, stoles and shawls.

tenure in HastKala Nigam (1991 -92), Judy Frater post-earthquake with the design schools, Meera Goradia as part of Khamir (2008) during the transition to cotton & Kala cotton.

Needless to mention, some negative elements have also been in play during this period. Demand for hand spun yarn reduced with the introduction of mill spun yarn. In the 1940s, there was a shortage of yarn, which could only be procured through a ration card¹²⁴. Later, when acrylic was introduced, Ludhiana traders started flooding local market with powerloom acrylic shawls. Local communities preferring cheaper, lighter and softer mill made synthetics to local fiber, hand spun, hand woven products necessitated the shifts of markets from local to distant. Bringing in fibers such as acrylic, merino and even fine count mill spun cottons, not only increases dependencies and vulnerabilities, but also take away the aspect of the local.

NGOs have taken up various initiatives, both as a response to the 2001 earthquake and long term with support in livelihoods. Similar to the relocation to Ajrakhpur, Vannatnagar in Adhoi has resettled weavers, who choose to move away and rebuild their settlement as a cluster outside of the main village. Unnati & World Vision supported with loom and initial working capital¹²⁵. Shrujan initiated market linkages for the weavers of Adhoi, whose location is geographically distant, from both Bhuj and the highway.

Both the design schools set up by Judy Frater and linking to The Handloom School by Khamir have set young weavers on a different trajectory. These young weavers are more articulate, are able to combine regional techniques and identity with market needs. Khamir has played a significant role in bringing in Kala cotton, which has triggered off a new wave of enabling change, with expanding market and increase in wage levels. There are visible examples of these interventions across the 15 villages, specifically in Adhoi and Ghanithar.

Overall, the agents and drivers of the vankar's transformation, and paradoxically also of some regressive changes as described above, include:

- The skills, adaptability, resilience and entrepreneurship of the vankars themselves, their resoluteness in maintaining a traditional craft, and the initiatives by some leaders amongst them;
- Access to external markets, especially to vankars living close to the capital city Bhuj; this includes an increasing consumer base interested in eco-friendly products such as organic cotton, or in being 'responsible' consumers that can contribute directly to local livelihoods, or in 'ethnic' wear that is in fashion;
- Interventions by Khamir directly in the handloom weaving process and in the value chain, and of the Kachchh Mahila Vikas Sangathan and others in creating a general atmosphere of women's empowerment, and of several individuals including designers, government officials, innovators;
- Background factors such as greater access to formal education, enabling general capacities such as literacy to be built;
- Technological changes, enabling greater or easier production capacity and/or greater access to markets, one of the most recent being the use of cone for warping that significantly reduces the space and time needed compared to the traditional method;
- Availability of artisanal craft schools and institutions, facilitating the creativity and innovation inherent to the vankars;
- Local industries providing tools /equipment/materials for production, e.g. the Paddhar spinning mill.

5.3 Unpacking transformation

A number of analytical points are emerging from the study, first in the understanding the nature of transformation, and second in the understanding of human agency.

5.3.1 The nature of transformation

Several lessons can be learnt about the nature of transformation, from this study:

¹²⁴ Meeting of core team, Khamir, August 18, 2017

¹²⁵ Group meeting, Vannatnagar Adhoi village, February 25, 2018

- In recent times the nature of the 'conflict' in the case of vankars has been seen as being primarily economic, i.e. to do with their occupation as weavers. Interventions and initiatives have therefore focused on this, leading to transformations in economic livelihoods. Transformations in other spheres of the lives of the community (such as in caste, gender, and generational relations) are linked to this, though not only this, as a number of socio-cultural factors also play a significant role. However, due to the strong focus on economic enhancement, it is likely that negative trends in some other spheres and elements, such as ecological impacts and inequality, have not been paid much attention, except by individual vankars and by institutions like Khamir, that too in a selective manner. This suggests that a single-dimension focus of transformation can have both positive and adverse consequences in other dimensions (linked to the next point). It is worth going into further aspects of this, such as *who* is engaged in single-dimension focus or *whether* there is any such conscious focus, *who* is seeing the multi-dimensional nature of its consequences, and how do the vankars themselves value the non-economic dimensions (which this study has not done in any depth).
- It is also important to realise that though in this case the economic dimensions of transformation appear to be the starting point, this may hide crucial factors that themselves lead to the foregrounding of economic transformation. For instance, as mentioned above, an important factor in this could be the inherent capacity of vankars to adapt and innovate, which is linked to cultural traits of the community (into which this study has not gone into any depth). In any community or society the multiple dimensions of life are interplaying in complex ways, and it may be too simplistic to say that transformation started with any one of them.
- Possibly one of the most important learnings in the study is that the transformation is not necessarily internally harmonious, or coherent; i.e., positive trends in one element or sphere may be accompanied by both complementary and contradictory trends in others. This is not really surprising for anyone who has been involved in observing or being part of transformations in society, but it is nevertheless interesting and important to have learnt how precisely this complex and internally differentiated process plays out in a specific case. The economic transformation amongst the vankars has clear links to reduction in inequities in social spheres, but an increase in economic inequities; and while some dimensions of it have been ecologically sensitive or positive, others are significantly not. Some aspects seem to be neutral, such as that of political engagement and empowerment.
- Transformations also seem to have a strong scalar dimension, from the individual to the community, and both in space and in time. The economic and social transformations described above, for instance, are uneven both geographically and for classes within the vankars. They are uneven for men and women, for individuals within families, and so on. They are also not necessarily linear in temporal terms: an understanding of timelines of change in the last few decades also suggests that there may be cycles of transformation, with a sense of well-being going up and down; some elders spoke about how there was a sense of well-being in the decade preceding the earthquake, then a decline, and now a rise again. Will there be another low phase as, for instance, the market of Kala cotton products or for handloom products in general gets saturated or declines? Vankars say that one market or the other will open up for their products, and also suggest that weavers should be helped to diversify in acrylic use also (especially for those finding it difficult to use Kala cotton). Nevertheless, would

some form of diversification help in greater resilience (this is related also to the question about future perspectives)? Finally, it is clear that while the lives of a section of the vankar community have visibly transformed, this is not necessarily the case for the community as a whole.

- These transformations have crucial power dimensions, as described in various sections above, e.g. the power relations between vankars and the market, between entrepreneurs and job workers, between Meghwals (dalits)¹²⁶ and other castes, between men and women, between elders and the youth, between vankars and external institutions/researchers, and so on. In all these, there are changes in power dynamics, in some cases towards greater equality/equity, in others towards continuing or new inequalities/inequities. Is there an overall redistribution of power towards greater equality? This is hard to say, but there is a strong (not universal) narrative that things today are clearly less oppressive and exploitative than they were in the early part of this century, or earlier when traditional caste and gender relations were strongly entrenched.
- While there was little opportunity to go deeper and more explicitly into the sorts of ethical and spiritual values that underlie vankar society, and how these may be changing with the overall transformation, some of the articulations give us glimpses. For instance, there is an interesting balance of collective spirit and individualism in the work, the former displayed by continued sharing of design and product innovations, the latter in the way individual entrepreneurs have forged their individual paths and the absence of collective mobilisation on policy issues. When asked, there is a concern about issues of continuing or new forms of economic inequality, and poverty amongst a section of weavers; but as yet the absence of action to redress these. Equality between men and women may also be a growing value; we have no baseline study to prove this, but assertions by some women and acceptance of its need by some men seem

like a relatively recent phenomenon. It is also likely that discussions over the several months of the study may themselves have generated new or increased reflection on core values within the vankars, the impacts of which will only be clear in the long run. More studies would be needed to delve deeper into how all this relates to the traditional worldviews of the vankars, as manifest in their religious and cultural traditions.

- A key premise of the ACKnowl-EJ project is that *transformative* processes (i.e. those that are a challenge to and/or present alternatives to systemic or structural causes of injustice) are different from *reformative* ones. It is however not always easy or possible to distinguish between the two, partly because of the complexities noted above. For instance:
 - If there is transformation in the case of some parts of a community but not others;
 - If there is transformation in some elements / spheres but regression in others;
 - If there is a significant change in the manifestations of injustice, e.g. poverty, conflict, livelihood insecurity, displacement and dispossession, etc, but not visibly in their root causes, e.g. capitalism, masculinity, etc;
 - If there are transformations in some systemic/structural aspects of a situation, but not necessarily in values, e.g. reduction in masculinity or casteism but not necessarily an increase in overall value of equality.

Moreover, at any point of time it may be difficult to ascertain whether changes taking place, which seem to be reformative in creating spaces within existing systems, may lead to transformations because they eventually push the limits of the system to breaking point. Transformations can be sudden, or gradual, and in the latter case may be difficult to ascertain.

¹²⁶ Note earlier caveat regarding the use of the term Dalit, which many vankars do not prefer to be called.

Several of the changes seen amongst the vankars could be seen to be transformative in that they are challenging the structures of injustice, but they are contradicted by others that are static or regressive. The structures of capitalism or statism are not explicitly or strongly challenged, though elements of it (such as the alienation of labour, or being at the mercy of state forces) are. It is not clear whether the values of social justice, equality and equity, ecological sustainability, and others that may underlie an overall positive transformation of society are getting stronger or not. The study therefore does not make any conclusive statement regarding whether the overall changes taking place in vankar community are a transformation towards an alternative (as defined in the Introduction); most certainly, it is not so in a holistic, integrated sense.

5.3.2 The nature of human agency

The role of enablers, direct and indirect, has also emerged in interesting ways in this study:

- While there are some very visible agents or enablers of transformation, such as in this case Khamir as an institution, the external market, and leadership amongst the vankars, there are also background structural or indirect ones that need to be unearthed and analysed more. These include technological innovation (both for production processes as also for marketing such as online platforms), the availability of different kinds of knowledge and information, opportunities for education providing general skills, and training institutions (like the artisanal craft schools). It is possible that even without one of these triggers the robustness, in this ensemble, could have happened. It would be impossible to pinpoint any one or two of these as the most important, or to assign weightages to their influence, or to assess the cross-influences amongst them, or to assess what particular combination of enabling factors worked here that was absent elsewhere in India where handloom weaving has declined, without a much more in-depth and longer study. Such a study could also look at how human agency is brought to bear on indirect or structural influences, once they are known or become visible.
- Another important insight gained is with regard to the 'alliances' that form (or, equally important, do not) in the transformation. These could be explicit or implicit, formal or informal, regular or sporadic, visible or invisible. The one between the vankars and institutions like Khamir or the artisanal craft schools is explicit, formal, regular, and visible; the one between vankars and some individuals/organisations who have helped in transformation over the last few decades, e.g. by introducing some new technology or helping spread information about woven products in Europe, may be less formal, sporadic, and at times even invisible. The one between vankars and people developing new technologies such as online marketing tools would be completely invisible, and it may even be a stretch to call it an alliance, but there is nevertheless a link that has significance for the transformation. And then there are the alliances that did not form, which is also significant; for instance, the lack of collective mobilisation amongst the vankars against government policies adversely impacting them.
- Amongst the significant policy implications of these results is that for more sustainable, coherent and holistic transformation, there may be need for facilitation by external civil society and/or government. As an example, weavers struggling with the switch to Kala cotton, or job worker weavers who do not have their own capital to become entrepreneurs, could get special attention by such external players (or such players could persuade the more well-to-do vankars to themselves become such facilitators). These could be crucial factors in reversing some of the changes that are regressive or negative from a socio-economic justice or ecological sustainability point of view; while such changes are unintended, reversing them would have to be a planned strategy.

6. The Future

The study results are pointing to a number of issues that need the attention of the vankar community, and of institutions working with them, especially Khamir. We would say even the government, except there has been little evidence of interest in the relevant institutions of the state so far. In particular the economic issues of inequality between entrepreneurs and job workers, the continuing distress amongst a section of vankars, the geographical imbalances in access to livelihood opportunities; and the ecological footprint issue, are worthy of such attention.

In the economically more robust villages, it seems that there is not much discussions within the vankars on the long term stability or fragility of weaving becoming dependent on external markets. Is it perhaps because they have already have undergone a major upheaval with local communities preferring other sources of fabrics? Is it because they have not thought about this much? As in most artisanal communities, does the immediate take precedence over medium to long term?

While the weavers are trying to hold on to their traditional motifs and their speciality, there are rising concerns of mass production, centralised markets and intensifying competition. Until now there has not been any shift towards technological advancements such as jacquard or mechanisation of the weaving processes. The practise of weaving has still retained its traditional identity of a family oriented practise. However, with incoming demand for mass production and along with it standardization, there could be change in the demand for bulk productions for fabric, garments of different shapes and sizes, and branding. The Birla company, for instance, is exploring introducing Kachchhi textiles into its Aadyam Handwoven brand, which could considerably increase

demand. The need for scaling up could push the weavers towards using technologies such as jacquard, mechanised bobbing, warping, dyeing which could completely change the nature of the handloom weaving practise and the identity of the Kachchhi weaving. With this trend, one of the strengths and identity of handloom weaving in Kachchh which is the family based practise might change into assembly line production system. Thus, completely altering the value system and social ties associated with weaving.

There is a threat perceived by some vankar elders, that even if the weavers who value handloom weaving and their own Kachchhi identity might resist the change, there could be influx of weavers and entrepreneurs from outside the community who might tap into this market, thus, changing the nature of the livelihood completely. This has been seen in other handloom clusters in India. There is a need for policy change, especially extending subsidies to the handloom sector as there are for power loom and industrial scale production, or conversely, removal of the latter's subsidies. This would help to maintain the costs of handloom within a reasonable range, and create wider local market, thus maintaining the demand for handloom weaving as a trend to resist mechanisation and mass production.

On a number of counts, the vankar community is both concerned about as also hopeful for the future. It realises that the macro-economic situation is not necessarily conducive, that young people have many other aspirations, that dependence on an external market is not necessarily secure. Like any other primary sector activity vanaat remains subject to a number of macro-economic factors that are not in the control or even under the influence of producers. However, the vankar community is hopeful that its adaptability and resilience will help it to

survive as it has in the past, that the recent period of upswing could continue especially if vankars are able to continuously innovate and 'create' markets, and that institutions like Khamir and the artisanal craft schools will continue helping. "Before the earthquake, it was acrylic ... each time there was a different market for different yarn ... we know post Kala, there would be some other market...like saree, tasser silk, eri silk ... so we trust the market, but we also keep bringing in changes to enable greater diversity and resilience."¹²⁷

Senior vankars realise that they will need to do more collective work (cooperatives, mutual help, advocacy), that special efforts are needed to encourage and incentivise the youth and women, and that issues like inequality and ecological impact need to be discussed and tackled. The vankar youth and women feel that given their increased empowerment, they can hope for continued enhancement in livelihood options. "Several weavers are stuck to acrylic, we need to encourage them to shift to cotton, wool, desi wool, etc. Other than this *vankar samaj* is doing well. We all enjoy doing new things like Kala cotton, designs, etc.... We need to be self-reliant on full process, including *raachh*, warping, etc ... not outsource these as is increasingly happening." The latter point in this also relates to the fact that as young members of vankar household go out in search of education and jobs or aspire for other occupations, there may simply not be enough family members left (or interested) in taking part in the full chain of weaving.

It is however difficult for any of them to envision the future beyond this, as many of these issues are fresh or only recently coming into discussion. Whether more dialogue can take place meaningfully in a large and influential enough section of vankars, and whether this would lead to some relevant interventions with their own agency and those of others like Khamir, can only be told in future. This study itself, by initiating or

encouraging conversations amongst the vankars on these issues, may act as a small trigger. For instance, at one of the final meetings to discuss the results of the study, some elder weavers proposed that the Kachchh Weavers Association organise a meeting with youth on visions for the future. As the various outputs of the study (including 6 short films relating to its key findings) get circulated and read/seen/heard, further such conversations may take place. Based on all this learning, both the weavers themselves, and institutions like Khamir, could continue playing an enabling role in further transformation.

¹²⁷ Meeting with youth, Khamir, June 13, 2018

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8. Annexures

Annexure 1. Villages in Kachchh with Weavers, and Villages Studied (marked with *)

- | | |
|--------------------|-----------------------------|
| 1. Adhoi * | 32. Kukma |
| 2. Adipur | 33. Makhana |
| 3. Awadhnagar * | 34. Mathak |
| 4. Badadiya | 35. Mathal * |
| 5. Beru | 36. Mau |
| 6. Bhadali | 37. Mirzapar |
| 7. Bhadroi | 38. Mota Bandara |
| 8. Bhimsar | 39. Mota Varnora * |
| 9. Bhuj | 40. Nagor |
| 10. Bhujodi * | 41. Nani Aral |
| 11. Bibar | 42. Nani Moti Virani |
| 12. Bidada | 43. Naredi |
| 13. Chandiya | 44. Ningal * |
| 14. Chunadi | 45. Nirona |
| 15. Deshalpar | 46. Punadi |
| 16. Devsar | 47. Radhanpar |
| 17. Ghanithar * | 48. Rampar |
| 18. Don | 49. Rampar Vekra * |
| 19. Faradi * | 50. Ramvadi |
| 20. Gadhvada Vara | 51. Juni Ravalvadi |
| 21. Ganeshnagar | 52. Sanganara * |
| 22. Gangon Ugamani | 53. Sanjotnagar (Rudramata) |
| 23. Godhra * | 54. Sarali * |
| 24. Gogan | 55. Sayara |
| 25. Jambudi | 56. Siracha * |
| 26. Jamthada * | 57. Sumrasar |
| 27. Juni Ravalvadi | 58. Todiya |
| 28. Jura | 59. Vadva Kanya |
| 29. Kandherai | 60. Varadiya |
| 30. Khambhara | 61. Varamsheda |
| 31. Kotay * | 62. Vyar |

Annexure 2. Chronology of Meetings, Interviews, and Village Visits

Group meetings in villages

Ghanithar | 7.8.2017
 Kandherai | 7.8.2017
 Don | 8.8.2017
 Godhra | 8.8.2017
 Mathal | 22.8.2017
 Nirona | 22.8.2017
 Sanganara | 22.8.2017
 Todiya | 22.8.2017
 Varamsheda | 22.8.2017
 Bhadali | 9.10.2017
 Jura | 9.10.2017
 Nani Virani | 9.10.2017
 Naredi | 9.10.2017
 Vadwa Kanya | 9.10.2017
 Bhadroi | 10.10.2017
 Bhimashar | 10.10.2017
 Mathak | 10.10.2017
 Bhujodi | 2.11.2017
 Kotay | 7.11.2017
 Awadhnagar | 16.12.2017
 Jamthada | 20.12.2017
 Sarali | 20.12.2017
 Bhujodi | 21.12.2017
 Godhra | 21.12.2017
 Mota Varnora | 23.12.2017
 Mota Varnora | 23.12.2017
 Ghanithar | 24.2.2018

Adhoi | 25.2.2018
 Mathal | 12.3.2018
 Sanganara | 12.3.2018
 Kotay | 15.3.2018
 Faradi | 16.3.2018
 Siracha | 16.3.2018
 Jamthada | 19.3.2018
 Ghanithar | 23.5.18
 Mota Varnora | 11.6.2018
 Mota Varnora | 10.7.2018/11.7.2018
 Jamthada, Siracha | 6.1.2019
 Adhoi | 7.1.2019
 Kotay | 8.1.2019

Individual conversations (and their location)

Kankuben Amrutlal Vankar, Kukma | 11.3.2018
 Hansaben Meria, Rampar Vekra | 19.3.2018
 Powerloom households, Adhoi | 19.9.2017
 Tejsi Samatbhai, Kukma | 3.11.2017
 Shamji Vishram Valji, Bhujodi | 2.11.2017
 Khimji Dana Vankar, Kotay | 7.11.2017
 Lakshmiben Gabubhai Mangaria, Bhujodi Sarpanch, Bhujodi | 11.3.2018
 Zuber Abdul Rahim, Dhamadka | 17.3.2018
 Dayalal Kudecha, Bhujodi | 17.3.2018

Khimji Kara and Dineshbhai Vankar
(Khamir weavers) | 17.3.2018

Awadhnagar women | 18.3.2018

Naranbhai Siju Vankar, Bhujodi |
22.5.2018

Preeti Soni, KMVS (cultural sphere) |
23.5.2018

Bhaat (raja), Nana Nakhatrana |
25.5.2018

Naranbhai Madan Siju, Prakash Naran
Siju, and Prashant Naran Siju, Bhujodi |
11.6.2018

Meera Goradia, Kalpavriksh, Pune |
16.7.2018

Meetings of & with youth / women / core team, at Khamir

Meeting with the core team | 30.5.2017

Meeting with the core team | 17.8.2017

KV and Khamir | 17.8.2017, 18.8.2017,
19.8.2017, 20.8.2017, 21.8.2017

Meeting with the core team | 17.8.2017

KV and Khamir | 17.8.2017, 18.8.2017,
19.8.2017, 20.8.2017, 21.8.2017

KV and Khamir | 31.10.2017,
1.11.2017, 6.11.2017

KV, Khamir, film team, KMVS, Drishti |
19.12.2017, 22.12.2017

KV, Khamir, Drishti, core team |
22.2.2018, 23.2.2018, 27.2.2018

KV and Khamir | 11.3.2018

Awadhnagar, meeting with women with
Preetiben from KMVS | 13.3.2018

Awadhnagar, meeting with women |
18.3.2018

Kasam Khatri, Bhuj | 13.3.2018

KV, Khamir, Drishti | 20.3.2018

KV and Khamir | 10.6.2018

Meeting with the elders, Bhujodi |
12.6.2018

Meeting with the youth, Khamir |
13.6.2018

Meeting with the women, Khamir |
10.7.2018

KV and Khamir | 12.9.2018-13.9.2018

Meeting with the core team | 14.9.2018

Meeting with the core team | 8.1.2019

KV and Khamir | 4.1.2019-5.1.2019

KV and Khamir | 10.4.2019-11.4.2019

Meeting with the core team | 12.4.2019

Other meetings and reconnaissance visits

Rudramata (Meghajibhai and Arunji) |
21.6.2017

Sumrasar (RamjiBhaiMaheshwari), Kala
Raksha | 21.6.2017

Jura (TulsiBhai) | 21.6.2017

Bibar | 21.6.2017

Devisar | 21.6.2017

Awadhnagar –meeting with women |
22.6.2017 & 23.6.2017

Annexure 3. Overview of Handloom Industry in India

The Indian textiles industry, currently estimated at around US\$ 150 billion, is expected to reach US\$ 250 billion by 2019. India's textiles industry contributed seven per cent of the industry output (in value terms) of India in 2017-18. It contributed two per cent to the GDP of India and employs more than 45 million people in 2017-18. The sector contributed 15 per cent to the export earnings of India in 2017-18¹²⁸. This 5,000 years-old Indian industry has a broad spectrum of production techniques -- from hand-operated to automated technology. Important features include a dualistic structure including decentralised or unorganised small-scale segment in weaving, knitting and apparel/garment-making along with a vertically integrated, large-scale, composite mill segment (spinning and weaving). Together mill, powerloom and handlooms account for 98.5 % of fabrics produced in the country, with the mill sector accounting for only 5.2%, while powerloom for nearly 73%, and handloom 20.3 %¹²⁹.

The handloom industry is one of the oldest and the largest cottage industries in India, representing and preserving vibrant cultural and livelihood traditions. Each state or region in India specializes in a different variety of handloom product determined by the culture of that region and reflects the high skill levels of the handloom weavers. Right from the ancient times, the high quality of Indian handloom products like muslin of Chanderi, silk brocades of Varanasi, thimroos of Hyderabad, khes of Punjab, Kanchipuram pattus, kosa and moga silk from Chattisgarh and Assam, the jamdhani from Bengal, ikats of Orissa and Telangana along with the Patan patola, the phenek and tongam and bottle designs of Assam and Manipur and the Maheshwari sarees of Madhya Pradesh have been famous all over.

According to the Handloom (Reservation of Articles of Production) Act, 1985, the term handloom is defined as "any loom other than power loom". The concept of handloom industry includes the process of operation by hand, on a wooden structure which is called the loom¹³⁰. Handloom is decentralized, mostly located as clusters across rural India. It is largely home based, with inputs by family members for various pre loom and loom-related activities. Pit looms, framelooms and pedal looms are the most common type of looms. The nature and ownership of production in this sector can be divided into three segments: independent weavers, master weavers (weaver entrepreneurs) and the co-operative societies. Independent weavers are weavers who own all aspects of production and access markets directly. Master weavers or weaver entrepreneurs invest in production and take risks of marketing and give out yarn to job workers for weaving into fabric. The co-operative sector is in two parts, an apex society and the primary society, wherein weavers are members of the primary society, and the apex society is an umbrella body for primary societies. These primary co-operatives are village based organizations that take up both welfare and business activities on behalf of its weaver members.

Of all the cloth producers, powerlooms have grown the most rapidly, in capacity, production and market share in the post independence period. The total number of powerlooms in the major states which dominated the sector grew from about 1.5 lakh in 1963 to 5.7 lakh in 1983 and further to 12 lakh in 1993. These official figures are grossly underestimated, because large numbers of powerlooms were not registered, so that they could escape paying taxes and flout government regulations intended

¹²⁸ <https://www.ibef.org/industry/textiles.aspx>

¹²⁹ <http://shodhganga.inflibnet.ac.in/bitstream/10603/84548/10/10.chapter%203.pdf>

¹³⁰ <https://www.eximbankindia.in/Assets/Dynamic/PDF/Publication-Resources/ResearchPapers/102file.pdf>

to protect the handloom sector¹³¹. Their relative growth has accelerated sharply after 1992 reforms¹³², leading to a massive displacement in the handloom sector¹³³. 'Currently woven cloth is predominantly manufactured by powerloom sector... more than five times the volume of cloth produced by handloom sector.. and it undercuts the place of the handloom weaver in the textile sector'¹³⁴.

With over 4.3 million people directly and indirectly involved in the production, the handloom industry is the second-largest employment provider for the rural population in India after agriculture¹³⁵. However, despite the government's mandate to protect and encourage the handloom sector, overt and covert policies and bureaucratic measures fully supported the explosive growth of powerlooms. Beginning with a crucial policy document as early as 1954, the powerloom sector was legitimized in government policy and its growth was aided and abetted¹³⁶.

The chief casualty of such proliferation of powerlooms was employment in the handloom sector. Every job created in the powerloom sector displaces 14 handloom weavers. Considering that powerloom cloth is priced much cheaper than that woven on handlooms, the mushrooming of powerlooms led to massive displacement in the handloom sector. Moreover, the explosive growth of powerlooms had an even more debilitating impact on the handloom sector because of the underhand strategies of the powerloom sector. This involved two key tactics, the diversion of yarn meant for the handloom sector and the violation of market reservations. In most regions, handloom sector is affected by powerloom copies which are sold at a lower price, mill & powerloom synthetic fabrics that are

sold at much lower rates, lack of access to reasonably priced raw materials and inadequate government investment¹³⁷.

With a view of raising funds for the industry and organising weavers' cooperatives, the Parliament passed the Khadi and Other Handloom Industries Development Act in 1953. To facilitate marketing of fabrics made in the handloom cooperatives, a national level apex body called the All India Handloom Fabrics Marketing Cooperative Society was set up in 1955. Subsequently, the Weavers Service Centre and the Indian Institute of Handloom Technology, were set up to provide infrastructure back up in the vital areas of applied research, service and training. The Handloom and Handicrafts Export Corporation of India Ltd (HHEC) was set up in 1958 to promote export of handlooms. To ensure a steady supply of raw materials such as yarn, dyes and chemicals to the State handloom organisations, the National Handloom Development Corporation (NHDC) was set up in 1983. Available data indicate that the number of handlooms increased in the period 1921 to 1983 (see Table 7). When schemes for the development of handloom industry were not enough to revolutionise the sector, the government appointed a high powered study team. On its recommendations, the Office of Development Commissioner (Handlooms), a nodal agency at the Centre, was set up in 1976 to ensure a scientific growth of the handloom industry. Since then this Office has been implementing various welfare schemes for the benefit of the handloom weavers. Some of the major programmes relate to supply of inputs, production, marketing, welfare package, training and enforcement of Handlooms (Reservation of Articles for Production) Act, 1985.

¹³¹ <https://thewire.in/labour/weavers-bear-the-brunt-as-powerlooms-displace-the-handloom-sector>

¹³² Development or Distortion? 'Powerlooms' in India, 1950-1997, Tirthankar Roy, EPW, Vol 33, No 16

¹³³ <https://thewire.in/labour/weavers-bear-the-brunt-as-powerlooms-displace-the-handloom-sector>

¹³⁴ <https://thewire.in/labour/weavers-bear-the-brunt-as-powerlooms-displace-the-handloom-sector>

¹³⁵ <https://www.ibef.org/exports/handloom-industry-india.aspx>

¹³⁶ <https://thewire.in/labour/weavers-bear-the-brunt-as-powerlooms-displace-the-handloom-sector>, Neeta Deshpande

¹³⁷ <https://thewire.in/labour/weavers-bear-the-brunt-as-powerlooms-displace-the-handloom-sector>, Neeta Deshpande

However, this trend gets reversed subsequently, as per the dedicated 'Handloom Census' undertaken every decade since the mid-1980s (Table 8). In the aftermath of economic reforms in 1991, there has been a steady shift towards organized sector, which is reflected in budgetary allocations. While overall budgets for the textile sector has been increasing consistently, the allocations for handloom has consistently decreased.

Today, in spite of being the second largest livelihood generator, the handloom sector faces many problems such as low quality of raw material, competition from power looms, credit requirements, marketing, absence of reliable database, export related policies, unfair taxation, and the impact of policies like demonetisation and GST.

Table 7: Estimated handlooms 1921 - 1983

| Year | 1921 | 1932 | 1941 | 1954 | 1974 | 1983 |
|---------------------|---------------|---------------------|-------------------------------|------------------------------|--------------------------|--------------------------|
| | Census Report | Tariff Board Report | Fact finding Committee report | Tax enquiry committee report | Sivaram committee report | Dev Commisioner Handloom |
| Estimated handlooms | 12,60,409 | 15,15,450 | 17,90,957 | 28,70,000 | 35,73,364 | 38,20,000 |

Table 8: Handloom census 1987 to 2017

| 1987 – 88 | 1995-96 | 2009-10 | 2017 |
|--|---|---|-----------------------------|
| 1st census | 2nd census | 3rd census | 4th census |
| 30.6 lakhs weaver households, 38.9 lakh looms; functioning looms 36.11 lakh | 25.24 lakh weaver households 34.8 lakh looms, with 90% working looms | 22.68 lakhs weaver 23.7 lakh looms, with 90% working looms | Figures yet to be announced |

Annexure 4. Bhajans

ભજન ચરખો

આવે ને જોવે ઈ બોલાવે,
 જ્યાં જુઓ ત્યાં સરખો....
 દેવળે દેવળે કરે પ્રકાશ.... દેવળે દેવળે કરે પ્રકાશ....
 પારખ થઈને પરખો.... ભાઈ કોણ બનાવ્યો ચરખો
 કોણે બનાવ્યો ચરખો, એના ઘડનારને પરખો....
 ભાઈ કોણ બનાવ્યો ચરખો....
 હે નુરતે સુરતે નીરખો.... ભાઈ કોણ બનાવ્યો ચરખો....
 રામરામ.... અરે જ્ઞાન ધૂનમેં જ્યોત જલત હૈ....
 મટ્યો અંધારો અંતરકો....
 ઇસ અંજવાળે અગમ સુઝે, ભેદ મલ્યો ઉન ઘરકો....
 ભાઈ કોણ બનાવ્યો ચરખો....
 કોણ બનાવ્યો ચરખો, એના ઘડનારને પરખો....
 એ નુરતે સુરતે નીરખો....ભાઈ કોણ બનાવ્યો ચરખો....
 પાંચ સાત કા સાઝ બનાયા,
 ખેલ ખરો ઉન ઘર કો....
 પવન કુદરડી રમે પ્રેમ સે....(ર) જ્ઞાની થઈને નીરખો
 જ્ઞાની હોકર પરખો.... ભાઈ કોણ બનાવ્યો ચરખો....
 કોણે બનાવ્યો ચરખો....
 રવિ રામ બોલ્યા, પરદા ખોલ્યા
 મેં ગુલાબ ઉન ઘર કો....(ર)
 હન ચરખે જુ આશ ન રખજા....
 હન ચરખે જુ આશ ન કરજા....
 ચરખો નહી રહે સરખો
 ભાઈ કોણે બનાવ્યો ચરખો....
 કોણ બનાવ્યો ચરખો, એના ઘડનારને પરખો....
 કોણે બનાવ્યો ચરખો, એને નુરતે સુરતે નીરખો,
 ભાઈ કોણે બનાવ્યો ચરખો....

કપાસ ઝીણા ઝીણા તાર

સત સમર વિના, સુતર કતન જા રે

તન પોંધી રે હાણે હલણજી

નાંચ અચણજી રે, નાંચ હી આંટી

સપનું હે સંસાર અધા.....

કપા(સ) ઝીણા ઝીણા તાર કતન જા રે

વઈ મ વઝા.... (વાના)

વઈ મ વઝા રે જમાર અધા,

કપાસ ઝીણા ઝીણા તાર કતન જા રે

વઈ મ વઝા.... (વાના)

સુતર સમુરો રે કતે ન દોરો....

ચેતી પંજ પાવ પણ પૂરો....

સત શરાફ ન જો તોરઘો દોરો....

તોળીન્ધે થીન્ધેરે તકરાર અધા....

કપા(સ) ઝીણા ઝીણા તાર કતન જા રે

વખત વેન્ધો ને, ધોખો થીન્ધો....

તાનો મીણો રે હર કોય દીન્ધો....(૨)

હોને ઉધાર કોઈ ના દીન્ધો....(૨)

સાહેબ ગનઘો સંભાર અધા....

કપા(સ) ઝીણા ઝીણા તાર કતન જા રે

નીચા સાહેબ જો રે હર કોય કેન્ધો....

જરા જર જો રે જવાબ ગનઘો....

હતે આમદ ઉને મામદ સદાઈન્ધો(૨)

કલમે જી આય પચાર અધા....

કપા(સ) ઝીણા ઝીણા તાર કતન જા રે

વઈ મ વઝા....

Annexure 5. Wage for Different Processes / Products & Time Taken for Each Process

| Source | Product | Total ends | Warping | Sizing | Attaching | Weaving | Per meter wage |
|--|--|------------|--|---------------------------------|-----------|--|-------------------------|
| Ranabhai Vankar(Khamir 6th July) | Plain Kala cotton yardage kora x kora | 1200 | 3 days (6 to 8 hours) | 1 day - 6 hours | 1 day | 5 days (3 mts / day?) | 90 |
| Karzan Vankar, Mathak (6 July 2018) | Plain Kala yardage cotton kora x kora (Khamir) | 1200 | 7 days | Nil (sizes yarn pre warping) | 1.5 days | 4 to 5 meters / day | 90 |
| Karzan Vankar, Mathak (6 July 2018) | Sofa set (with extra weft) 10s 3 ply warp x acrylic weft | 280 | 2 days | Nil | 1 day | (25 length x 24 weft)/ 1 # (5ft x 24 " width) | Rs 700 / day |
| Ranabhai (Khamir 6th July) | Kala cotton yardage kora checks | 1200 | | | | | Rs 150 |
| Ranabhai (Khamir 6th July) | Kala cotton yardage kora stripes | 1200 | 1 day , since yarn is packaged in cone form | | | | Rs 120 |
| Ranabhai (Khamir 6th July) | Kala cotton solid ND warp & weft | 1200 | | | | | Rs 180 / meter |
| Ranabhai (Khamir 6th July) | Kala cotton sari plain | 1200 | | | | 1 sari takes 3 days to weave | Rs 1800 / sari / 3 days |

| Source | Product | Total ends | Warping | Sizing | Attaching | Weaving | Per meter wage |
|----------------------------|--|------------|---------------------------|--------|-----------|--|---|
| Ranabhai (Khamir 6th July) | Kala cotton sari extra weft* | 1200 | | | | 1 sari takes 6 to 7 days to weave | Rs 4500 / sari |
| Ranabhai (Khamir 6th July) | Luni (pure merino) | 300 ends | | | 1 day | 2 pieces / day 6.5 meters / piece= 13 meters | Rs 700 (Rs 350 / piece) |
| Ranabhai (Khamir 6th July) | Acrylic gedua | 250 ends | 1 day ; yarn in cone form | 1 day | | 3 geduas / day / 50 meters in 3 days 7 meters / gedua | Rs 120 / gedua x 3 gedua / day |
| Ranabhai (Khamir 6th July) | Acrylic shawl plain | 550 ends | 2 days | | | 5 to 6 shawls / day | Rs 120 / shawl |
| Ranabhai (Khamir 6th July) | Acrylic shawl extra weft (Shyamji) | 550 ends | 2 days | | | | Rs 150 / Rs 350 / Rs 1200 per shawl |
| Ranabhai (Khamir 6th July) | Acrylic shawl extra weft (market rate) | 550 ends | 2 days | | | | Rs 100 plain / shawl Rs 120 extra weft / shawl |

Annexure 6. Handloom and Other Weaving Types

Handloom weaving in Kachchh is unique to its region, in terms of the skill, motifs, design, and ingredients used. It contains three successive processes to weave a fabric:

1. Pre-loom process
2. On-loom process
3. Post-loom process

In addition to these direct weaving related processes, the production process of raw materials (e.g. cotton farming, sheep rearing, silk farming etc.) and their processing to make yarns through hand or mill spinning, are very critical elements to sustain the entire value chain of handloom based fabric making.

Compared to handloom weaving, power-loom and mill-based textile production are predominantly electricity driven, machine operated systems, often in settings where the family is excluded. In this sense, the eco-worth (and direct social importance) of handloom products is much higher than those produced

from mills and power-looms (Box A). It is important to note that despite large scale expansion of power-looms and mills elsewhere in the country, handloom weaving in Kachchh has remained a strong tradition even if in decline for some time; this continuity is seen in its recent visible revival.

Handloom weaving practices in Kachchh have gone through transformations, from being largely local in its entire production and consumption cycle, to significantly higher external linkages including experimenting with new yarns, growing scale of production, and reaching of markets at distant places.

Importantly, the handloom based textile making is much less intensive in the input it needs, the resources it consumes, and the pollution it produces, compared to power-loom and mill based production (Table 9).

Table 9: Comparison of environmental concerns in textile weaving types

| Parameters | Handloom | Power-loom | Mills |
|------------------------------|------------|-------------------|-----------|
| Potential of Noise Pollution | None | High but confined | High |
| Potential of Air pollution | None | Low | High |
| Potential of Water pollution | Negligible | Medium | High |
| Solid Waste Generation | Negligible | Medium | High |
| Water Use | Low | Low | Low |
| Human Energy Use | High | Low | Low |
| Electricity Energy Use | Negligible | Low | Very High |
| GHG Emission | Negligible | High | Very High |

Box A: Key features of Different Weaving Sectors in India

In Indian conditions, there are four major sectors of textile industry- the mill, power-loom, handloom & Khadi. They all are different in term of use of family labour, energy consumption, waste generation etc. Except in Khadi, other textile industries use yarns that are made in mills. Khadi, in principle, use only hand-spun yarns.

Mills: Weaving mills today produce about 4% of the country's cloth. The first mills were set up in India in the mid-19th century to export cotton cloth to England, and thrived during the American Civil War. They continued production for a hundred years, but the inherent unviability of mechanical weaving meant that they could only pay low wages to the mill workers, which led to strikes and unrest from 1928. In the 60s the advent of 'powerlooms' sounded the death-knell of the mill sector.

Power-loom: Has taken over about 76% of the textile production of India. Beginning with discarded machinery from mills, power-looms use sophisticated modern weaving machines and outprice the mills by working around industrial labour laws of the country, paying abysmally low wages. Most of the textile export from India consists of the cheapest cotton 'grey sheeting' made on power-looms. Power-loom and hosiery centres such as Bhiwandi, Ichalkaranji, and Malegaon in Maharashtra, Sircilla in Andhra & Tiruppur in Tamil Nadu are notorious for the inhuman working & living conditions of the workers and for industrial pollution.

Handloom: The artisan weaving cotton textiles on the handloom has been unfairly relegated to a peripheral status in the textile industry. Not only does handloom still employ the largest number of people in the country after agriculture, it still makes 12-13% of India's textiles and has tremendous potential in the future as a low-energy, ecological way of making a vast array of textiles for wear and household use. That there is a substantial market demand for handloom cloth is proved by the fact that most power-loom cotton fabric in the country is sold unlawfully as handloom.

Khadi: Recently, due to various institutional issues related with Khadi & Village Industries Commission, Khadi has drifted far from the local self-sufficiency of Gandhi's vision. Cotton lint is transported to 5 or 6 central sliver plants (sliver is a strip of loose untwisted cotton fibres produced by carding), which process it through high energy machines and distribute the sliver to all the sansthas in the country. Khadi today produces only 0.1% of our textile output.

Adapted from: Uzramma (2014). By Hand: The looms that can lead India. <http://www.thealternative.in/lifestyle/the-loom-lead-india/>

Annexure 7. Cotton Handloom Value Chain of Kutch

Entire value chain of cotton handloom in Kutch could trace into five critical stages. They are:

(i) Farming: Cotton Production

Cotton farming in India is one of the major cultivations, making India the second largest producer of cotton in the world (WWF, 2013)¹³⁸. This production is largely of long staple, genetically modified Bt cotton, though there are also many local varieties of cotton grown in small quantities. Kala cotton is an indigenous cotton variety grown in Kutch. The two varieties of cotton used in weaving in Kutch (Bt and Kala) have distinct characteristics in terms of fibre texture and strength, and farming methods. Against the high volume of water and fertilizer use in Bt cotton, Kala is primarily a rainfed and organic crop. Prima facie, it would appear that, Bt cotton has a larger ecological footprint as compared to Kala cotton, with a greater intake of resources to grow. Under this study, different farming practices of cotton production are explored.

(ii) The Ginning: Production of Lint Cotton

Ginning is the process of separating the cotton fibres from the seed-cotton (the *kapas*). The process is largely mechanical in nature, although earlier it was manually done. And the separated cotton seeds, depending upon the cotton variety, are either used for oil extraction or convert it into livestock feed.

At ginning process level, there are some degrees of difference between Kala and Bt cotton varieties. In case of Kala cotton, where seed-cotton is enclosed within the 'boll' (i.e. indehiscent boll), and in order to take it out, 'foaling' is necessary to remove the 'bracts' (locally called *thaliya*). In Bt cotton, however, there is no need for foaling. Second major difference between both the varieties is the harvesting time. For Bt cotton, it is from October to February, and for Kala cotton it is February-May. This gives the ginning plant the sufficient window to work with both the varieties.

(iii) The Spinning: Production of Yarns

The spinning of yarn is done in mills or manually by using 'charkha'. However, production of hand spun yarn is quite negligible. The entire process of mill spinning of cotton yarn is heavily depending on electricity run heavy machines. The cotton spinning mills are common in Ahmedabad, Surat, Tamil Nadu and other textile hubs of the country, which mostly spin medium or large-staple cotton. The short-staple cotton spinning mills are very few in number. Generally, the short-staple cotton is mixed with long staple cotton to make yarns for some specific purposes. However, the first spinning mill dedicated to short-staple desi Kala cotton was initiated in 2017 in Paddhar village in Kachchh. During our village level discussions, it is clear that Kala cotton revival has been historic is trying to connect weavers with the traditional and local resource base.

(iv) The Weaving: Production of Fabric

Compared to earlier days, weavers today use a range of yarns, dyes and other raw materials, which are often not produced locally but outside of Kachchh and surrounds. The weaving process starts with the procurement of different types of yarns like of cotton, acrylic, silk, Marino-wool, viscose etc., from different traders. Weavers in Kutch, generally have two major sources of yarn and dye procurements- local Bhuj based traders (like Kaasam Khatri) and Ahmedabad based traders and suppliers (like the Ambika Traders). The Kala cotton yarn are mainly procured from Khamir or directly from the spinning mill in Paddhar. Importantly, this study has not been able to assess the ecological impacts of the production of fibre/yarn, as a lot of it is in distant places and it is very difficult if not impossible to trace it to its origin.

Subsequently, there are the pre-loom processes, mainly for rendering the yarns suitable for weaving. These processes are the warping, sizing and dyeing. The warping and sizing are

¹³⁸ WWF. 2013. Cutting cotton carbon emissions - Finding from Warangal, India. WWF-India, New Delhi

done by and large manually with family labour and may not be having any environmental implication.

Yarn dyeing is a specialised job, carried out by weavers themselves or by local Khatris (a community that is traditionally doing dyeing) using both chemical and natural dyes. Khamir, who is promoting Kala cotton based fabrics, also dyes yarns with natural colours, and then makes it available for the weavers. Other than these, large yarn dyeing units outside Kutch, mainly in Ahmedabad (e.g. RSL Company), also dye yarns in bulk and through different traders supply to the weavers. So, weavers get dyed yarns directly from the traders, especially if it is chemically dyed. For such cases, traders give bulk order to yarn dyeing units. Thus weavers in Kutch have various routes of getting their yarns dyed. In general, depending upon the yarn and dye types (Table 10), the practice of dyeing varies. The dyeing process consumes large quantity of water. In general, process of chemical dyeing in mills consumes more water than that of natural dyeing by weavers.

On-loom process is the actual weaving activity, where the weavers use their skills and expertise, create different designs/motifs and weave the fabrics and products like saris, shawls, stoles etc. of different types. It mainly consumes human labour. Largely, the process of weaving is done during the day-hours. Night time weaving is

generally avoided by most of the weavers, so use of electricity is very limited. In sum, the actual weaving has very little ecological impact, other than the indirect one of what is required to sustain human energy.

Post-loom process mainly comprises of cleaning or washing of finished fabric and, in some cases, hot-ironing. After these the product is ready for the sale. However, use of water and energy were reported not much.

(v) The Marketing

The weavers by and large sell their products in diverse geographical locations, using different sale avenues. While most weavers sell their products through retail outlets, mostly located in their house or a small showroom, products also go for sale in different parts of India as well as in foreign countries. Other than retail selling, exhibitions in major cities of the country (e.g. Delhi, Bangalore, Hyderabad, Mumbai) are the key points of trade. Some entrepreneur weavers also regularly attend exhibitions in different countries including USA, Australia, UK, France etc. While, within country, product consignments are transported through trucks, mostly shared with other goods, the export orders are transported mainly by ship or air cargo. Thus, the distances where the products sold and mode of transportation used, are critical while assessing the environmental costs of trading of products.

Table 10: Cotton yarn dyeing arrangement in Kutch

| Yarn Type | Chemical Dye | Natural Dye |
|--------------|---|--------------------|
| Kala Cotton | Weavers themselves | Weavers themselves |
| | Local Khatris | Khamir |
| | Dyeing mills outside Kachchh (e.g. RSL) | |
| Other Cotton | Weaver themselves | Weavers themselves |
| | Local Khatris | Local Khatris |
| | Dyeing mills outside Kachchh (e.g. RSL) | |

Annexure 8. Brief Description of Cotton Farmers Consulted During the Study

| | Parameters | Units | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------------|---------------------------|----------------|---------------------------------|------------------|-------------------------------------|--------------------------------------|------------------------------------|--------------------------------|----------------------------|
| Farmer Details | Farmer Name | Name | Rajubhai Narsingh Naloda | Virambhai | Kalyanbhai Nathubhai Madhavi | Shivrambhai Sambhubhai Pandya | Bhavanbhai Govindbhai Patel | Bhavanbhai Govind Patel | Bhaves Khemji Patel |
| | Age | Year | 54 | 60 | 60 | 52 | 50 | 50 | 29 |
| | Village | Name | Shamsherpur | Morathwada | Makhel | Pandyagarh | Pragpar | Pragpar | Narayanpar |
| | Taluka | Name | Sami | Harij | Rapar | Rapar | Rapar | Rapar | Nakhatrana |
| | District | Name | Patan | Patan | Kachchh | Kachchh | Kachchh | Kachchh | Kachchh |
| Land Details | Total Land | Acre | 51 | 14 | 50 | 30 | 25 | 25 | 35 |
| | Soil Type | Type | Black Cotton | Goradu | Kali-Goradu | Matiyar-Kaletar | Sandy | Sandy | Sandy Loam |
| | Irrigated Land | Acre | 0 | 9 | 0 | 0 | 18 | 18 | 35 |
| | Irrigation Source | Type | Rainfed | Borewell | Rainfed | Rainfed | Borewell | Borewell | Borewell |
| Cotton Production | Cotton Year | Year | 2016-17 | 2016-17 | 2016-17 | 2016-17 | 2016-17 | 2016-17 | 2017-18 |
| | Cotton Area | Acre | 29 | 3 | 8 | 16 | 2 | 6 | 4 |
| | Irrig. Cotton Area | Acre | 0 | 3 | 0 | 0 | 2 | 6 | 4 |
| | Cotton Type | Name | Desi | Bt | Kala (Desi) | Kala (Desi) | Bt | Kala (Desi) | Bt |
| | Cotton Variety | Name | Kalyan797; Gujarat 21 | S-6 (Ankur, Jai) | Kalyan (Gujarat-21) | Kalyan (Gujarat-21) | Ankur/Dhanlaxmi | Kalyan -797 | Jai |
| | Sowing Period | Date | 15 July to 15 Aug | 15 to 20 June | 10 to 15 August | 15 to 30 Aug | 15-Jun | 15-Jul | 25-May |
| | Harvest Period | Date | 7 Feb. to 15 March | 15 Oct to 15 Jan | 15 Feb. to End March | Feb End to April End | Oct end to March end | 15 -28 Feb | Oct End to 15 Jan. |
| | Production | kg | 16000 | 3000 | 16000 | 4680 | 3280 | 7480 | 6160 |
| | Productivity | Kg/acre | 560 | 1000 | 2000 | 293 | 1640 | 1247 | 1540 |
| Ginning Mill Detail | Mill Location | Name | Harij | Harij | Paddhar, Kutch | Paddhar, Kutch | Rapar, Kutch | Rapar, Kutch | Jakh, Kutch |
| | Distance from Farm | Km | 30 | 2 | 150 | 160 | 13 | 13 | 25 |

Annexure 9. Attribution of Carbon Footprint to the Weavers for their Kala and Bt Based Fabric Making and Marketing

| Parameters | Shamjibhai | | Chamanbhai | | Ramesh Mavji | | Lalji Vankar, Kotay | | Khamir |
|---|------------|-------|------------|-------|--------------|-------|---------------------|-------|--------|
| | Kala | Bt | Kala | Bt | Kala | Bt | Kala | Bt | Kala |
| Cotton Yarn Used for Weaving (in Kg) | 5000 | 4500 | 400 | 200 | 250 | 500 | 5 | 30 | 9000 |
| CO ₂ Eq of per kg of Fabric making and marketing | 0.91 | 0.55 | 1.48 | 1.25 | 1.15 | 1.03 | 0.69 | 1.40 | 0.79 |
| Total CO ₂ Eq accounted for fabric making & marketing (kg) | 4536 | 2464 | 591 | 250 | 287 | 517 | 3 | 42 | 7149 |
| Total Allocated Cotton Quantity for Spinning Mill (kg) ¹³⁹ | 5051 | 4545 | 404 | 202 | 253 | 505 | 5 | 30 | 9091 |
| CO ₂ Eq of per kg of Yarn production (kg) | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 |
| Total CO ₂ Eq accounted for Yarn Spinning (kg) | 11287 | 10158 | 903 | 451 | 564 | 1129 | 11 | 68 | 20273 |
| Total Allocated Cotton Quantity for Ginning Mill (kg) ¹⁴⁰ | 5154 | 4638 | 412 | 206 | 258 | 515 | 5 | 31 | 9276 |
| CO ₂ Eq of per kg of Ginned (or lint) Cotton production (kg) | 0.196 | 0.148 | 0.196 | 0.148 | 0.196 | 0.148 | 0.196 | 0.148 | 0.196 |
| Total CO ₂ Eq accounted for Cotton Ginning (kg) | 1010 | 685 | 81 | 30 | 50 | 76 | 1 | 5 | 1817 |
| Total Allocated Cotton Quantity for Cotton Farmer ¹⁴¹ | 7750 | 7081 | 620 | 315 | 387 | 787 | 8 | 47 | 13950 |
| CO ₂ Eq of per kg of seed-cotton production (kg) | 0.96 | 4.13 | 0.96 | 4.13 | 0.96 | 4.13 | 0.96 | 4.13 | 0.96 |
| Total CO ₂ Eq accounted for Cotton Production (kg) | 7420 | 29222 | 594 | 1299 | 371 | 3247 | 7 | 195 | 13357 |
| Overall CO ₂ Eq Emission Attributed to Weaver | 24252 | 42529 | 2168 | 2031 | 1273 | 4969 | 23 | 309 | 42595 |
| CO ₂ Eq per kg of Cotton Value Chain Attributed to Weaver | 4.85 | 9.45 | 5.42 | 10.15 | 5.09 | 9.94 | 4.63 | 10.30 | 4.73 |

¹³⁹ 1% cotton yarn loss from Spinning mill to Weaver.

¹⁴⁰ 2% cotton loss from lint cotton (ginning) to yarn (spinning)

¹⁴¹ About 33-35% cotton loss from production to ginning process

Annexure 10. Attribution of Water Footprint to the Weavers for their Kala and Bt Based Fabric Making and Marketing

| Parameters | Shamjibhai | | Chamanbhai | | Ramesh Mayji | | Lalji Vankar, Kotay | | Khamir |
|---|------------|---------|------------|--------|--------------|--------|---------------------|-------|---------|
| | Kala | Bt | Kala | Bt | Kala | Bt | Kala | Bt | Kala |
| Total Cotton Quantity Used (kg) | 5000 | 4500 | 400 | 200 | 250 | 500 | 5 | 30 | 9000 |
| Total Dye Cotton Quantity (kg) | 2500 | 1350 | 300 | 200 | 150 | 450 | 0 | 30 | 3000 |
| Natural Dye Cotton Quantity (kg) | 500 | 0 | 300 | 0 | 50 | 0 | 0 | 0 | 3000 |
| Total Water Quantity Use for Natural Dye (Litre) | 22500 | 0 | 1950 | 0 | 200 | 0 | 0 | 0 | 9000 |
| Chemical Dye Cotton Quantity (kg) | 2000 | 1350 | 0 | 200 | 100 | 450 | 0 | 30 | 0 |
| Total Water Quantity Use for Chemical Dye (Litre) | 130000 | 87750 | 0 | 13000 | 2000 | 9000 | 0 | 1950 | 0 |
| Total Blue Water Use in Dyeing Process (litre) | 152500 | 87750 | 1950 | 13000 | 2200 | 9000 | 0 | 1950 | 9000 |
| Blue Water use per kg of Total Cotton use (litre) | 30.5 | 19.5 | 4.9 | 65.0 | 8.8 | 18.0 | 0.0 | 65.0 | 1.0 |
| Total Allocated Cotton quantity for cotton Farmer (kg) | 7750 | 7081 | 620 | 315 | 387 | 787 | 8 | 47 | 13950 |
| Blue water used for per kg of Cotton production (litre/kg) | 105 | 1156 | 105 | 1156 | 105 | 1156 | 105 | 1156 | 105 |
| Total Blue water use for cotton Cultivation (litre) | 816086 | 8183305 | 65287 | 363702 | 40804 | 909256 | 816 | 54555 | 1468955 |
| Overall Blue water use attributed to weaver (litre) | 968586 | 8271055 | 67237 | 376702 | 43004 | 918256 | 816 | 56505 | 1477955 |
| Blue water use per kg of entire cotton value chain attributed to weaver (litre) | 194 | 1838 | 168 | 1884 | 172 | 1837 | 163 | 1884 | 164 |

Annexure 11. Government Schemes for Artisans and E-commerce

(Prepared as per the discussions organised at office of Director, District Rural Development Agency, Bhuj-Kutch, 20 August, 2018)

The Government of India and Government of Gujarat have laid down many schemes for the artisans. These schemes are under implementation through various departments and agencies. As the artisans are functioning as entrepreneurs and as members of cooperatives (very few cases), they are also covered under various other schemes of Government departments. There is a strong need of convergence of all these schemes to ensure their wider reach to artisan community and direct impact.

A programme involving the various agencies involved in Handloom and Handicraft sector development should be organised at District level for raising awareness about various schemes of State and Central government for the welfare of artisans. This coupled with linkages to e-commerce platforms like Amazon can help the artisans to explore new market avenues. Each of the agencies will explain about their various schemes in simple terms to the rural and urban artisans. Such Artisan friendly programs periodically will bring artisans closer to the agencies and enable them to take benefit of the laudable schemes announced by Government time to time for benefit of artisans. The artisans will also get a feeling of being heard by the Government by giving them a common platform like this to voice their issues and seeking government support for their growth.

During a meeting organised at the office of Director, DRDA, Bhuj-Kutch on 20th August, 2018; the officials of various departments narrated following schemes, which can be included in a district level information dissemination program for artisans.

1. District Industries Centre (DIC), Bhuj

DIC acts as nodal agency to implement the cottage industries related schemes for the artisans. The main schemes for the artisans are:

- 1.1 Dattopant Thengdi Interest support scheme
- 1.2 Bajpayee Bankable scheme

1.3 Setting up cooperatives for handicraft and handloom artisans

1.4 Weavers identity cards

1.5 Registration of artisan units under Udhog Aadhar scheme

2. RSETI, Bhujodi

An institute established by lead bank of Kutch district – Dena Bank. It has a mandate of providing training to foster entrepreneurship. Artisans can take benefit of following programs:

- 2.1 Customised training programs as per the need of artisans. The artisans need to approach in group.
- 2.2 Residential entrepreneurship development programs for artisans. The expert resource persons can be invited as per the need of artisans
- 2.3 The handholding support after the programs is provided till the individuals in group receives loan from financial institution.

3. District Rural Development Agency (DRDA), Bhuj

The main nodal agency to implement Rural development programs across district. The main programs where artisans can engage are as under:

- 3.1 Pradhanmantri Gramodaya Yojana (PGY) – Artisan associations or NGOs can avail the benefit.
- 3.2 Access to stalls in premier program like Rannotsav
- 3.3 Access to stalls in local Gramhaats and other places
- 3.4 Stalls in the craft fairs out of Gujarat – For BPL artisans only

4. District lead bank (Dena Bank), Bhuj

Dena Bank is the district lead bank in Kutch district. It is a nodal agency to implement following financial inclusion programs for the artisans:

- 4.1 MUDRA loans for artisans
- 4.2 Rupay cards for artisans
- 4.3 Information on artisan related portal

5. Garvi Gurjari (Gujarat State Handloom and Handicraft Development Corporation) and Indext-C

Garvi Gurjari and Indext-C are Government of Gujarat agencies to promote arts and crafts in the state. In Bhuj both the agencies operates through Bhuj Haat based on Mundra road. The main schemes are:

- 5.1 Skill building trainings for artisans
- 5.2 Allotment of stall for artisan in state sponsored exhibitions
- 5.3 Free stalls for award winner artisans as well as artisans from languishing crafts (Namda, Rogan, Lacquer work, Kharad weaving, Ajrakh printing and Copper coated bells)
- 5.4 Direct purchase from artisans
- 5.5 Organising national level buyer-seller meet in Ahmedabad
- 5.6 Processing or job work with artisans
- 5.7 Keeping artisan stock on consignment basis

6. Development Commissioner (Handicrafts) office, Bhuj

Development Commissioner (Handicrafts) is main nodal agency of Government of India working for development of handicrafts and artisans across the country. It has an office in Bhuj city. There are following known schemes (Indicative list as the representative of office was not there in meeting):

- 6.1 Allotment of Adhar linked new Artisan Identity Cards

- 6.2 National awards, National merit certificates for artisans

- 6.3 National level fairs for artisans

7. Handicraft Mega Cluster Scheme (HMCM)

A national level Government mega program is under implementation in Kutch district. HMCM operates through an office based in Bhuj Haat. Main scheme has following components:

- 7.1 Design development with artisans and designers
- 7.2 Credit facilitation scheme linked with other schemes of DC (Handicrafts)
- 7.3 Distribution of toolkit among artisans
- 7.4 Setting up Common Facility Centres (CFCs)
- 7.5 Organising trade fairs at national level

8. NABARD

A district level agency is having its office in Bhuj city. The list of schemes for artisans can be availed from District Development Manager, NABARD

9. The schemes of other Government departments

The schemes of other Government departments include schemes of following departments, the details of which were not available at the time of finalising this report:

- 9.1 Social welfare department
- 9.2 MatiKala and Rural Technology Institute, Gandhinagar
- 9.3 National Handloom Development Corporation
- 9.4 GRIMCO – Gujarat Rural Industries Marketing Corporation.

*Note: The list of schemes is prepared on the basis of discussions and as per information received. This is an indicative list and more details under each scheme or about other schemes can be added for the district level program.

Additional information

1. Schemes of the Industries and Mines department, Government of Gujarat, Development Commissioner, Handlooms: <http://www.imd-gujarat.gov.in/handloom-schemes>
2. Schemes of the Government of India, Ministry of Textiles, Development Commissioner, Handlooms:
 1. Comprehensive handloom cluster development scheme / Integrated handloom development scheme
 2. Comprehensive handlooms development scheme / National handloom development program (NHDP) _ April 2017 to March 2020
<http://handlooms.nic.in/writereaddata/2634.pdf>
3. Revival, reform & restructuring scheme
4. Yarn supply scheme
 - a. NHDC – yarn supply scheme
Yarn supply scheme (Implementation period – 2019-20)
 - i. Indicative targets for supply of yarn to be assigned based on number of looms in the State
 - ii. 10% subsidy available on reimbursement basis through DBT (direct bank transfer) instead of upfront subsidy (cotton, domestic silk, wool, linen)
 - a. Mill gate price, lower than wholesale
 - b. Opening of yarn depot in handloom concentrated areas to ensure regular and timely supply of yarn
 - c. NHDC shall set up at least one yarn warehouse in every state
 - d. Maximum quantity of yarn / weaver:
 - i. Cotton – upto 40s count – 30 kgs / loom / month
 - ii. Cotton – above 40s count – 10 kgs / loom / month
- iii. Similar for wool & linen & silk
- iv. More than this, 10% subsidy will not be applicable
- e. Weavers to have unique loom number, entered into ERP system and weavers passbook.
- iii. NHDC supported by a corpus by GoI
- iv. Weavers pass book to be issued along with weavers id card
5. Handloom weavers comprehensive Welfare scheme
 - a. PMJJBY / PMSBY – age 18 – 50 years
 - b. MGBBY – 51 – 59 years old
<http://handlooms.nic.in/writereaddata/1232.pdf>
6. Enforcement Wing - Central assistance for implementation of the Handlooms (Reservations of the Articles for Production) Act 1985
7. Handloom weaver Mudra scheme & online portal – for online claim and disbursement of margin money, interest subsidy and credit guarantee fee
8. Scholarship to 2 children through National Scholarship Portal (NSP)
<http://handlooms.nic.in/writereaddata/1232.pdf> some time; this continuity

The handloom weavers of Kachchh (Gujarat, India) have witnessed a remarkable revival of their craft in the last decade, based on innovations that have created new markets. This study examines the multiple dimensions (economic, social, cultural, political, ecological) of transformation resulting from this revival. It brings out key enablers of the transformations, and important lessons for transformations towards justice and sustainability.

This report highlights four positive changes: an overall increase in well-being, with a mix of economic, social, psychological elements; the retention or return of youth to weaving and their increasing voice in the craft; reduction in casteism and gender discrimination linked to the revival; and a flowering of innovation and creativity through hybrid knowledge and learning systems.

It also points to elements of increasing injustice or unsustainability. This includes increasing class inequality amongst weavers, and greater ecological footprint as the trade shifts national and globalised markets.

As a specific sub-focus in the study, a detailed ‘ecological footprint assessment’ is described, comparing the impacts of the organic (kala) cotton and of the genetically modified (Bt) cotton.

The study is a collaboration amongst three partners: Kalpavriksh, Khamir, and the community of weavers as represented by some senior members. For Kalpavriksh it is part of a global activist research project, ACKnowl-EJ (www.acknowledgej.org), and for Khamir, part of its quest to make meaningful inputs to the sustenance of crafts in Kachchh.

A short version of this report, Key Findings and Analysis, is available at:

<https://kalpavriksh.org/publication/sandhini-weaving-transformations-in-kachchh-india-key-findings-and-analysis/>



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