ICAR-CIFT INTERVENTION IN WOMEN ENTREPRENEURSHIP DEVELOPMENT AND LIVELIHOOD ENHANCEMENT: A SUCCESS STORY FROM VERAVAL, GUJARAT, INDIA









Funded by SEED Division, DST, New Delhi

Presented by Dr. Remya. S PI & Senior Scientist, ICAR-CIFT (Central Institute of Fisheries Technology) Willingdon Island, Kochi, Kerala

Sidi Tribes: The Africans of India



'Sidis', or 'Habshis' is a unique tribal group with African ancestry, who have been brought to Gujarat as slaves.

The Sidis of Saurashtra have been designated as Scheduled Tribe (ST) since 1956 and further accorded the status of 'Primitive' group in 1982.



Kharwas



* 'Kharwas', the fishermen community, form a sizable part of the local population in the coastal regions of Gujarat like Veraval.

Objectives

- Imparting hands on training on the 'renewable energy based hygienic fish drying using hybrid solar dryer designed by ICAR-CIFT' to the tribal and fisher women groups of Veraval, Gujarat
- Establishment of hybrid solar fish drier unit designed by ICAR-CIFT in the selected area for the target group
- Providing training on 'improved packaging and labelling methods' and 'hygienic handling of fish, sanitation and preprocessing activities' for producing better quality fish
- Providing training on 'preparation of diversified value added fishery products' to expand the market
- Establishment of vacuum packing unit & value-added products preparation unit for the benefit of target group

- Socio-economic upliftment of Sidi Tribal women and fisherwomen of Gujarat
- Empowerment of women of beneficiary communities by giving expertise in lost cost high value fish post harvest technologies
- Providing alternative employment opportunities to poor tribal women and fisherwomen
- Popularisation of technologies for preparation of quality fish products









- Conducted baseline surveys to select beneficiaries from the tribal and fishing community
- Initial meetings with community members







Socio-economic survey-Key findings

- Location: Talala, Veraval, Gir-Somnath District, Gujarat
- Religion: Muslim
- Caste: Sidi (Scheduled Tribe)
- Number of families: 60
- Average family size: 5
- Number of adults: 212
- Number of female: 102 (48 %)

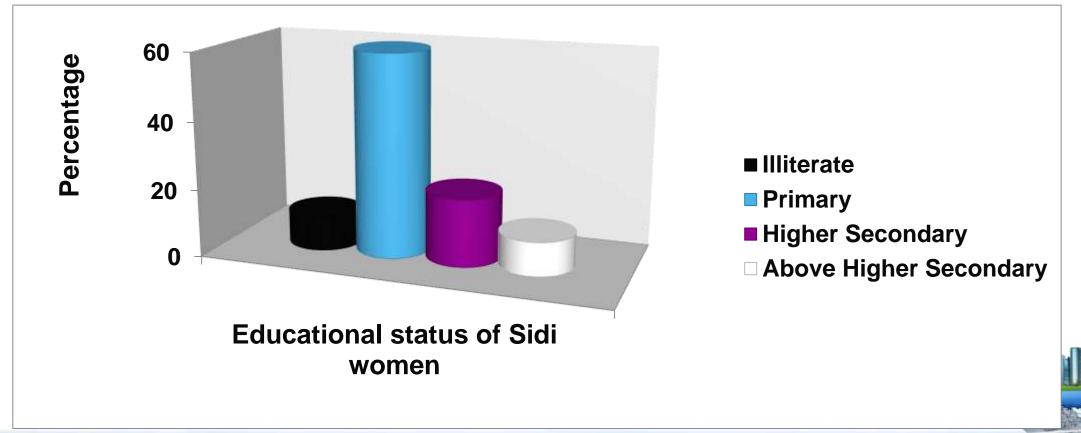






Educational status of Sidi women

About 60 % Sidi women had access only to primary education

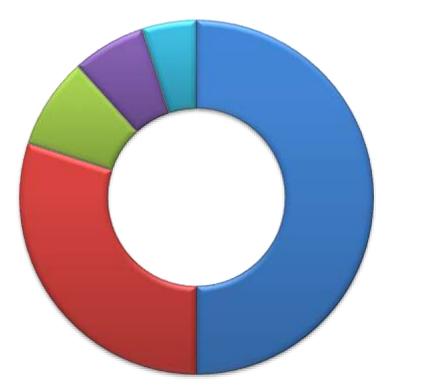






Classification of family based on monthly income

Majority of the Sidis live below poverty line



- Very low income (<Rs. 5,000/Month)
- Low income (Rs. 5,000-10,000/Month)
- Medium income (Rs. 10,000-15,000/Month)
- High income (Rs. 15,000-25,000/Month)
- Very high income (>Rs. 25,000/Month)

Families holding BPL card: 77 %





SWOT Analysis



Strengths

- **1. Availability of raw materials**
- 2. High economic motivation
- **3. Self motivation**
- Weaknesses
- **1. Lack of technical knowledge**
- 2. Lack of finance
- **3. Lack of education and information**
- 4. Social taboos and beliefs





SWOT Analysis



Opportunities

- 1. Strong technology support from ICAR-CIFT
- 2. Proximity to the sea
- 3. Govt. funded livelihood development schemes for tribal people and fishers

Threats

- 1. Lack of awareness about loans and schemes
- 2. Maintenance of quality standards of value added products
- 3. Lack of facility for storing fish for off- season





Formation of group and selection of key members such as President and Secretary



Sidi Community



Secretary



ભારત સરકાર Government of India

મસાંગરા અપ્સાના દિલસાગ Musangara Apsana Dilsag XAL ALEN / DOB : 18/07/1993 kal / Female



4558 2128 7212

- સામાન્ય માણસનો અધિકાર





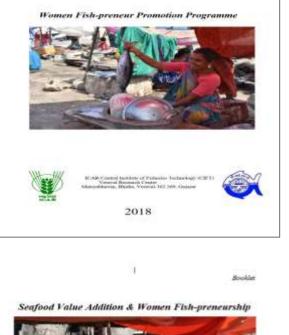
Kharwa Community





Publications/Preparation of basic study materials in Gujarati

Training manuals: 4 Extension bulletins : 1 Brochures: 20



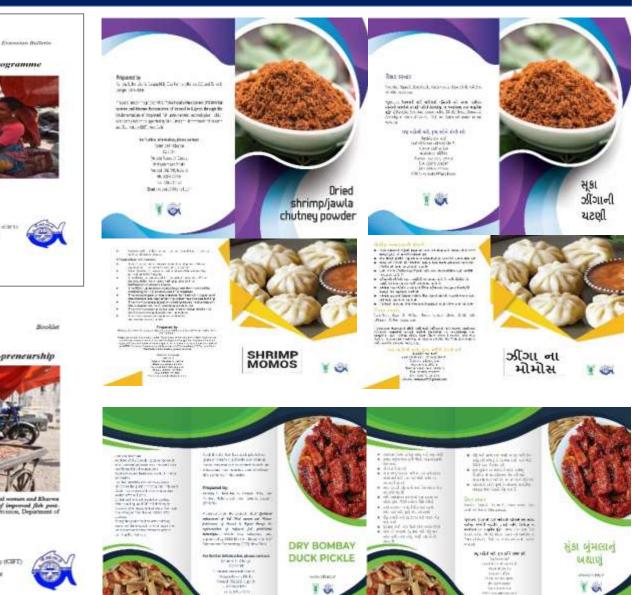


Prepared under the project titled "Livelikood enhancement of Statt influid woman and Eharvan fisherwaren of Prevent in Galaxia through the implementation of impreved fish posthorvest technologies", vitabil two catalyzed and supported by SEED Dramon, Department of beamen and Technology (DET), New Della:



ICAP. Central Institute of Folseries Technology (CIFT) Vennal Research Centre Introshhavan, Bhadia, Vennal-362 299, Oujarat

2020



HEATTH FARMINESS

HYBRID SOLAR DRYER with electricity as alternate back up energy source

One of the hybrid solar dryers developed has electricity as alternate back up heating source for continuous drying of fish even under unfavourable climatic conditions. Solar energy is effectively harnessed using specially designed solar air heating panels and proper circulation of the hot air across the stainless steel trays loaded with fish with the help of blowers makes the drying process

In short

Solar Dryers will help to prepare good quality dried fish products with longer shelf life and better nutritional properties with reduced drying time. Moreover, the fishes dried hydienically using solar dryers will definitely find a place in the market as branded products meeting approved quality standards.

Ÿ AUTHORS Dr. Remva. S. Mrs. Renuka, V. Dr. Ashish Kumar Jha Dr. Toms C. Joseph Dr. C.N. Ravishankar

Get in Touch

Veraval Research Centre of CIFT Matsyabhavan, Bhidia Plot Veraval 362 269, Gujarat



www.cift.res.in---

11

માછલી ખરાબક્ષાય તેવી ચીજ છે. જેને યોગ્ય ખર્ચ પક્ષિય પેકેજિંગ અને વિતરણની જરૂર પડે છે. જો તેનો ખર્ચ અસરકારક અને કાર્યક્ષમ રીતે કરવામાં આવેછે. માછલીની સકવશી અને સાચવણીએ સૌથી જુની અને જાણીતી અને સસ્તી પહાંતિ છે. ભારતમાં, આશરે 25% માછલીનોજથ્થોસકવશીમાટે વપરાય છે. ઘરેલું અને વિદેશી બજારોમાં સકા માછલી માટે મોટી માંગ છે. ખુલ્લા સર્વપુકાશમાંમાછલીનીસકવણીએ વ્યાપક પદ્ધતિ છે.

ખુલ્લામાં સકવણી ની પરંપરાગત પદ્ધતિ

- 🖗 સર્ચ સકવણી કદરતી કવામાનની સ્થિતિ પર ભારે આધાર રાખે છે અને ઓપરેલન પર કોઈ નિયંત્રણ નહીં, કારણ કે માછલી સર્વનીગરમી દ્વારા સકાઇ જાય છે અને ફવાનો પ્રવાફ પાણીને દૂર રાખે છે.
- સામાન્ય રીતે સકવણી દરિયાકિનારા પર કરવામાં આવે છે. જેના પરિણામે રેતી, ગંદકી અને અન્ય ખરાબચીજથી માછલી દષિત શાયછે.
- આ સિવાય, સસ્તા, બિન-શહ્ર મીઠું સુઘ્ર માછલીને ધોવા માટે તાજા પાણી અઢવાખા રા પાણી તોઉપ શોગમાં આવે છે.
- માછીમારબદેનો સકવણીમાં રોકાંઘેલી ફોવા છતાં <mark>પરંપરાગત</mark> પક્રતિને અનુસરે છે. જે સામાન્ય રીતે બિન<mark>આરોગ્યપુદ</mark> પરિસ્થિતિઓમાં ઉપયોગી ઘાય છે જે નબળી ગણવત્તામાં นใจตมิติ
- કાગડાઓ, કતરાં, બિલાડી અને પક્ષીઓ, જે આ વિસ્તારોમાં સામાન્ય છે અને માછલીઓને કોઈ રક્ષણ વગર બીચ પર સકવવામાં આવે છે. પરિણામે, કાઇનલ ઉત્પાદનમાં ગણવત્તાની 🌻 માત્રા હોતી નથી. પણ તે બજારમાં સૌથી નીચી કિંમતેવે યાય છે.
- કાશીની સાદડીઓ, ઊભા પ્લેટકોર્મ, વાંસની સાદડીઓ અને શલની સદડીઓપર માછલીની સકવણી ચોક્કસ મર્યાદામાં દૂષણ ઘટાડવા માટે મદદ કરશે.

સોલરડાયર

નો ઉપયોગ કરીને માછલીનીસકવણી

કિશિંગ ક્ષેત્રના ઓપરેશનલ ખર્ચમાં ઊજાં એ મુખ્ય ઘટક ਲੇ ਕੀਆਂਗੀ ਅਬਕਾ ਲੱਖਲੀਜੀ ਓਪਬੀਸ ਬੁਟੀਜੇ ਤੀਸ਼ਕ ਕੇਲ અને મિકેનિકલ ડાયર્સ, ઊર્જા स्रोतो ઉપલબ્ધ છે. પરંતુ તે ખૂબ ઊર્જા ધરાવે છે અને CO, બહાર કાઢે છે. વૈકલ્પિક ઉर्श्व स्रोत अग्रतलना सावमां वधारी इरवाना युगमां તીવ ધ્યાન કેન્દ્રિત કરવામાં આવે છે. આ પૃષ્ઠભુમિની विरद्भमां सर्वशिश्च सडवली माटे संलवित स्रोत तरीडे ધ્યાન મેળવે છે. જ્યારે સર્ચ ભારત જેવા ઉષણકટિબંધીય દેશમાં વર્ષના એક સારા ભાગ માટે ખૂબ તેજસ્વી પ્રકાશ आपे छे. त्यारे ઊर्જाना परंपरागत सोतोने साथववा માટે આ ઊર્જા સંગઠ એ શ્રેષ્ઠ વિકલ્પ છે. સોલર ફીટિંગ सिस्टम सौधी वधु व्यवहार विडल्प छे डारण डे ते जयांग અને અસરકારક છે.

હાઇબ્રિડ સોલરડાયર

સોલરડ્રાયર ની ડિઝાઇન ખૂબ સરળ ડ્રાયસંથી વધુ જટિલ વર્ણસંકર કોય છે. આઈ.સી.ચે.આર.-સી.આઈ.ચેક.ટી. ચે પર્યાવરણ મૈત્રીપૂર્ણ સમહ અને મુક્ત રીતે નવીનીકરણીય સૌરઉર્જા ઉપલબ્ધ કરીને સુકી માછલીના સ્વચ્છ ઉત્પાદન માટે डाઇબ्रिડ सोलर ડ्रायिंગ सिस्टम रथू डरी छे. આ सिस्टममां એલપીજા, બાયોગેસ, બાયોમાસ અથવા વીજળીની મદદથી વૈકલ્પિક રીતે બેકઅપ ક્રીટિંગ સ્રોત તરીકે માછલીની સતત સકવણી શક્ય છે, જ્યાં માછલીને પ્રતિકળ ફવામાન પરિસ્થિતિઓમાં બગાડ વગર અને તેના પોષક મલ્યોને જાળવી રાખીને સ્વચ્છ રીતે સકાઇ શકાય છે.

નાલાભો

શકો કેન્ડલી ખર્ચ અસરકારક भ्वयम स्वास्थ्य स्थिति સુધારેલ ઉત્પાદન ગુણવત્તા સકવલીના સમય માં ઘટાડો પોષક ગણવત્તા જાળવણી

રેતી. પુલ, જંતુઓ, ઉંદરો અને પક્ષીઓ સામે રક્ષણ દુષ્કાળ ફવામાનની સ્થિતિમાં પણ સુકાઇ જવું શક્ય છે तापमान चने लेशनी निवत्रित परिस्थितिओमां સુકાઈ જવું

ICAR-CIFT VERAVAL

Preparation of quality dried fish using

SOLAR DRYER

Capacity building/Skill development/Training programmes

SI. No.	Title			
1.	Workshop on development of entrepreneurial skill to empower women from backward communities	Beneficiaries (Direct)		
2.	Workshop on Safe and quality fish production	 50 women (2 groups), 25 each from 		
3.	Training on hygienic fish handling and pre-processing protocols			
4.	Training on preparation of value added products from fish	Sidi tribal community and Kharwa fishermen community		
5.	Training/Skill development programme on renewable energy based hygienic fish drying methods			
6.	Training/Capacity building programme on improved packaging and labelling methods for producing better quality fish			

Training programmes





Technology standardization and transfer



CT SHOT CARE

Renewable energy based hygienic fish drying using hybrid solar dryer developed by ICAR-CIFT

Protocols standardized ≻For drying different commercially important fishes in Solar Dryer

CIFT SOLAR FISH DRYER



Optimization of drying of squid using solar drier



The moisture content was reduced to 24 % in 36 hrs in sun dried samples (*Loligo duvauceli*) and in 12 hrs in solar dried samples. Compared to open sun drying moisture reduction was 3 times faster in solar drying.



Solar and Sun dried squid rings





Protocol standardization for preparation of value added fishery products and shelf life studies



Development of Value Added Products

Shelf life studies









EFFECT OF ADDITION OF FISH PROTEIN POWDER ON THE Physico-chemical and nutritional properties of dats cookies

- Fish protein powder (0, 2, 4,6, 8 and 10 % of the total weight)
- **Proximate composition of oats cookies**

Sample	Protein	Ash	Fat	Moisture	Carbohydrate
T0	14.78	0.76	31.94	2.67	49.85
T1	19.36	0.85	30.38	2.68	46.73
T2	24.41	0.70	29.23	3.12	42.54
Т3	25.89	0.85	28.50	3.22	41.55
T4	26.15	1.04	26.75	3.75	42.31
T5	32.04	0.79	26.51	3.83	36.83



Packaging and labelling of fish and fishery products

ICAR

Improved packaging and labelling methods

-Vacuum packaging







Signing of MoU with Patel, Sidi Community

Ajas Prakashillani

Signing of MoU with Patel, Kharwa Community



Outcome/Impact of the intervention programmes by DST & ICAR-CIFT

- The intervention programmes by ICAR-CIFT facilitated women from two disadvantaged communities to organise into groups to empower themselves as businesswomen taking their families and community forward in the process.
 - The regular meetings/workshops/training programmes organized by ICAR-CIFT increased awareness on the existing livelihood options among the beneficiaries and helped Sidi tribal women to establish a Solar fish drying unit. With the technical support of ICAR-CIFT, a group of Sidi women from 'Bharat Adim Juth Matsyodyog Sahakari Mandli' started selling hygienically dried fish products with attractive package and label in the local markets in Veraval.



Outcome/Impact of the intervention programmes by DST & ICAR-CIFT

Among Kharwa fisherwomen, a women group named 'Sagar Manthan Machhimar Utthan Mandal' from Veraval in Gir-Somnath District of Gujarat trained at ICAR-CIFT started participating in the local fairs and melas in Gujarat and could earn handsome amount as profit by selling fish based products. Taking a cue from the success, they have started selling of fish based snacks in Veraval. They have opened a restaurant in Veraval. With the effective use of social media platforms, they have also started home delivery of seafood products in and around Veraval. On an average, now, a member earns Rs. 6,000/- per month. Earlier, some of them were housewives without any income.



DST intervention in women entrepreneurship development: A success story from Veraval, Gujarat



than machimar atthan meedal 🕑 622336713 🛛 Sager manifum machimar atthan meedal 🕑 622336713 🛛 Sager manifum mechimar atthan meedal 🕻

ina fish picki

A new enterprise by Sagar Manthan Machhimar Uthhan Mandal (A group of Kharwa fisherwomen)



'Doubling fisherwomen's income through seafood value addition: A



Project in news and social media

Siddis make a killing with branded dry fish

Use CIFT-Made Solar Dryer For Hygien Produce

Mount Plainers

standing and the state of the second state of the second state of the second state of the The Decision of The Association of The Association

found begins The contact rulting receiving in with has new adapted heavy with weather with any find uses -

Taken's Arrywork Parise. which Bergelika Musers or contrationer with while uncoded, "speet of the fail of and Sa, first mathing and payments for where will be group from Role, attend of OFT's Version policy ing the second of werth "Servicial Services and an end of the

THE TIMES OF INDIA

Munch on fish cutlets, samosas on Veraval beach

TNN: 5ep 21-2018; 04:00 AM IST

Raikot: Sea food lovers can relish burgers, sandwiches and samosas stuffed with fresh fish while relaxing on the beach at Veraval

These fish delicacies, prepared by a self-help group (SHG) of 25 women, were sold like hot cakes in the three-day Chorwad fair held from September & to 10. Encouraged by the response, the women's group Sagar Manthan Macchimar Utthan Mandal are preparing to sell these products at the beach. In fact, a new chowpaati with several public amenities is already coming up at Veraval

This coastal town, which witnesses lakhs of people coming to Somnath temple, is Gujarat's fisheries hub for years now, but this is the first time that a dedicated effort has been made to sell these value-added products. Among all coastal districts of Gujarat, Gir-Somnath accounts for highest fish production of four lakh tonnes a year, most of which is sold outside the state or exported.

Hansa Solanki, member of the SHG, said, "We invested around Rs 57,000 to set up the stall in the fair and earned a profit of Rs

Veraval's fish on Kashmir hotel menus soon

on Rosentrariye / THIN / Lipchelent Apr 2, 2021, 09-05 IST



an and have body for fail you higher pros." Another thread the frequency and the branches apport the house 9:22 AM

(f)

WY GIRLOOK DOWN ST

RAJKOT: The aroma of fish samosas, burgers and chutneys from the shores of Versivel has watted all the way

up to the Himalayas. And soon you are likely to find these value-added fish products on

store shewer in Kashmi

Recently, a team of students

Siddis hit jackpot with branded dry fish Nimesh Khakhariya I TNM I Aug 9, 2016, 04:00 IST

100 M

VIDEOS

... 🗹 🧐 🕈 🖃 4G VolTE 🖃 🚛 78%





Rajkot: The Siddi community engaged in fishing at Veraval in Porbandar are now getting better price for their produce. Thanks to the solar drying machine prepare under the technical guidance of **Central Institute of Fisheries Technology** (CIFT). Adopting the new technique has not



the Brank Late L. S. S. Marin Marrie all and, in some subsets and they my abaselia De dougs Bad Conditioners, Just all of Party of mentioner, more analys count it

Tweet

.....



Collector GirSomnath @collectorgirsom

Post-harvest fishing kits distributed to women from Siddi & Kharwa communities for income generation at Central Institute of Fisheries Technology #WomenEmpowerment #BlueRevolution #GirSomnath #Gujarat

() 🖘 🕄 🛄 80% 🏬 16:41



Tweet your reply

વેરાવળમાં માછીમારો-સીદીજન સમુદાચને માછલીના મલ્યવર્દીત ઉત્પાદન માટે માર્ગ દર્શન અપાસં

THE TIMES OF INDIA

Gujarat: Kharvas women ready to hook your palate with seafood and more

W DW-Dcrib 2020 01.45 AM 57



The co-operative society of Kharve women is now starting a restaurant in Veraval where such delicacies will be served any time of the day. While you are relishing on seafood, you can also treat yourself to farsans and weets in the adjoining portion of the restaurant. Sea, beach, seafood and dessert - ain't that a total treat in itself?



de from freshwater fish

in Kashmir

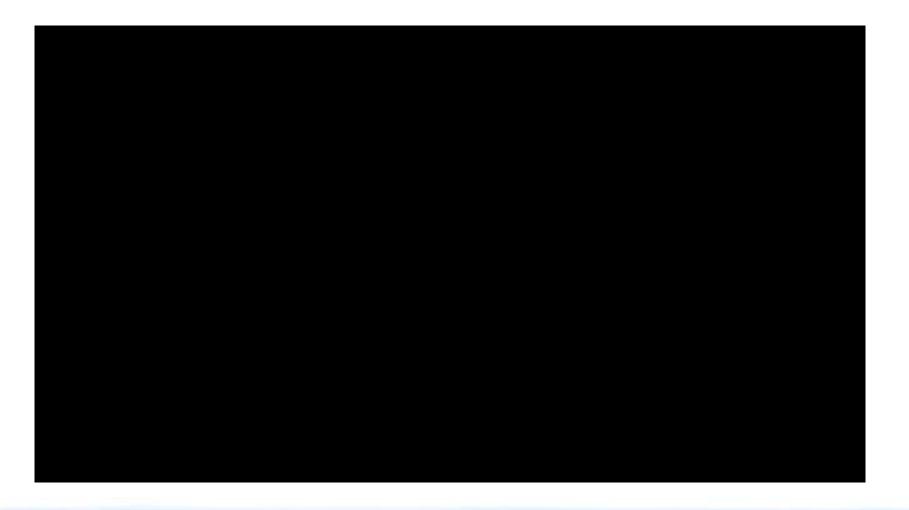


HUGE MARKET: Kashmir's fish production is 20,000 tonnes per year but consumption is 1.25 lakh tonnes per year. Majority of the population is non-vegetarian and fish is a main course of food so products from Veraval will find a huge market in Kashmir, said an SKUAST-K faculty member.

















Thank You All

