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THE RHYTHM BEHIND STORIES OF CHANGE

ADAPTING ADIVASI WOMEN TO CLIMATE CHANGE:
COOKING AND WATER SOLUTIONS



Laya has been a catalyst of change in the lives of over 15,000 Adivasi women.

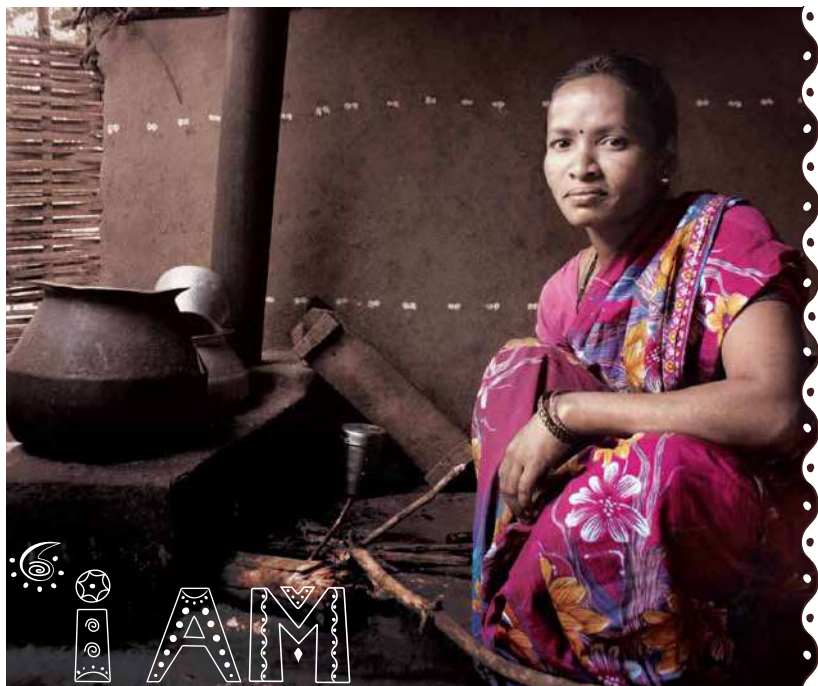
Climate-friendly technologies refer to those technologies which are community centric, low carbon, decentralised, community owned and managed. Climate-friendly technologies contribute significantly towards community resilience building. These are particularly significant as they have played a role in changing the lives of the Adivasi community, especially its women.

I AM LAYA THE RHYTHM OF LIFE!

This is the story of life. And of transformation. A story of Laya which was born in 1985 and still continues to unfold countless chapters. Chapters of change in the lives of the women from the Adivasi community in the high-altitude zone of northern Andhra Pradesh.

An NGO headquartered in Visakhapatnam, Laya's larger vision is to empower Adivasi communities through improved self-sustainable living, education, healthcare etc. At the macro level, Laya collaborates with other organisations & stakeholders to achieve sustainable development particularly in the context of climate change. The threats of climate change are not gender neutral and the Adivasi women in particular are more vulnerable to it as they are highly dependent on local natural resources for their livelihood.

The Adivasi regions have an abundance of natural sources that can be leveraged to benefit the inhabitants. Laya is constantly exploring & introducing climate-friendly, low carbon, low emission technologies which harness these natural & renewable resources to facilitate the wellbeing of women in these communities.



I AM

GEETHA. And this is my story of smiles!



FOUR YEARS AGO, MANY WOMEN LIKE ME FROM KUNTHURLA VILLAGE USED TRADITIONAL STOVES THAT CONSUMED LARGE QUANTITY OF FIREWOOD AND EMITTED EXCESSIVE SMOKE THAT WAS HARMFUL TO OUR HEALTH. MANY WOMEN & CHILDREN SPENT ALMOST 2-4 HRS A DAY TO ENSURE THAT ENOUGH FIREWOOD WAS STOCKED THROUGH THE RAINY SEASON.



HOW SARALA STOVES BROUGHT SMILES TO OUR LIVES:

The introduction of Sarala Stoves as an improved way of cooking transformed our lives. Later the carbon-based stoves that were introduced reduced the drudgery of thousands of women and facilitated a cleaner & healthier indoor kitchen environment. With time saved in collecting wood, we now have more quality time with our family & friends. Also, we feel much healthier, with less frequent trips to the doctor.



More than 11,000 stoves have been built across 2 districts of East Godavari & Visakhapatnam. Thousands of women have benefited from this intervention as it reduces the burden of carrying wood and kitchens are relatively smoke free, while the technology also facilitates faster and more efficient cooking. Plus, smog-free homes, reduced charring of utensils, reduced the burden of collecting firewood & cooking time have all lead to effective social & economic impact with better health & wellbeing of these women.

Although many like me have benefited greatly from the new efficient stoves, there are several women in other areas who continue to experience the drudgery of fetching heavy loads of firewood and kitchens filled with smoke. It is through Laya's continuous endeavour to involve, inspire and educate stakeholders that facilitates communities to transform and improve lives of women in these regions.





I AM
RUKMINI. And this is my story of freedom! 

 ALTHOUGH IT WAS EASIER TO DRAW WATER FROM NEARBY STREAMS FOR IRRIGATION BY ADOPTING INNOVATIVE TECHNIQUES, DRINKING WATER WAS STILL A MAJOR CONCERN. THE WOMEN OF THE VILLAGE HAD TO WALK GREAT DISTANCES DAILY JUST TO FETCH WATER. SOME OF US EVEN HAD TO NEGOTIATE TOUGH TERRAIN TO REACH EITHER NATURAL SPRINGS OR PERENNIAL STREAMS. 





HOW WATER INITIATIVES BROUGHT FREEDOM TO OUR LIVES:

Gravity Flow

After a feasibility study and tests to measure the water pressure and other details, Laya came up with unique solutions to solve the issue of water availability. Gravity Flow being one of them, it consists of an elevated reservoir with an outlet at the bottom that feeds water for basic drip irrigation system. This was first initiated in 2010 at Munagalapudi Village with the aim to bring fallow land back into cultivation. Over time, this has not only helped in critical irrigation but allows for domestic water access, thus reducing the drudgery and time spent in collecting water from far away. Today, approximately 45 acres of fallow land and 30 farmer families are reaping the benefits of 3 Gravity Flow units. Thanks to this system, water is much cooler & cleaner. The improved health conditions due to this have resulted in great savings in terms of medical costs.

Hydram

Hydram or hydraulic ram pump is an alternate pumping system that uses the renewable energy from falling water to pump it to an elevation much higher than where it originates. This is an energy efficient way to provide adequate domestic water supply and can be set up anywhere that there is a steady & reliable flow of water. The key benefit from this system so far has been the access to water in close proximity to households who otherwise travelled great distance to collect water. Thus, they now have more time for their household chores & agricultural work. With 6 outlets of water from the stream for irrigation and 10 taps of drinking water supply to the village, Laya has so far set up Hydrams in 4 locations, also bringing about 5 acres of land under irrigation with decreased crop mortality rate.

Both these initiatives have significantly elevated the socio-economic & environmental conditions, as they save electricity, have zero emission with minimum maintenance while improving agricultural income and employ local youth in setting up the projects. Thanks to these, over 18 acres of land has been cultivated and cash crops such as Cashew Nut & Mango are now being grown.





GRAVITY FLOW

Advantages:

- ☉ Allows doorstep water access, reducing labour and saving time of water collection
- ☉ Brings back fallow land that lacks irrigation, back into cultivation
- ☉ It facilitates critical irrigation for standing crops
- ☉ Zero emission

Cost of the system: INR 3.5 lakh - 4.5 lakh (location specific)

Economic benefits:

Increase in income of households
(up to INR 35,000 per acre/year from cashew plantations)





SADALA. And this is my story of health and happiness!



I USED TO LIVE IN GUNDKOTA VILLAGE WHICH IS ON TOP OF A HILL. DURING THE MONTHS THAT THERE WASN'T AGRICULTURAL YIELD, WE USED TO SURVIVE ON TUBERS. DUE TO THIS, WE MIGRATED FROM THE HILL TO THE VILLAGE, BUT WATER WAS AN ISSUE HERE. THE QUALITY OF DRINKING WATER THAT WE USED TO COLLECT FROM STREAMS AND OTHER WATER SPRINGS WAS NOT VERY GOOD. SOMETIMES THERE USED TO BE A DISTINCT TASTE AND ODOUR, AND MANY A TIME THIS WAS THE MAJOR CAUSE OF ILLNESS LIKE THROAT INFECTION, COUGH AND DIGESTIVE PROBLEMS AMONG CHILDREN & ELDERS.



SLOW SAND WATER FILTER

Advantages:

- ☉ Time saving of 4 to 5 hours per day (1,460 hours in a year = 182 person days!)
- ☉ Reduces drudgery in carrying headloads of water
- ☉ Provides control over the system and management
- ☉ Zero emission

Cost of the system: INR 1.20 lakh - 1.50 lakh (location specific)

Economic benefits:

Money saved on medication and doctor's fees

BIOSAND WATER FILTER

Advantages:

- ☉ Access to clean and safe drinking water
- ☉ Time saved in water collection
- ☉ Fuel saving
- ☉ Household ownership and management
- ☉ Zero emission*

Cost of the system: INR 4,000 per unit

Economic benefits:

Direct climate benefits by way of emission reduction from each filter is estimated at 2.3 tonnes of carbon dioxide (T CO₂)

Laya has formulated a project to implement 11,000 BSFs under Gold standard VER project to trade carbon credits

*The study report by Center for Affordable Water and Sanitation Technology (CAWST) on the use of biosand filters in Laya's working area reported "BSF users are very happy with the quality of water produced and all of them mentioned that their health improved after they started using BSFs".

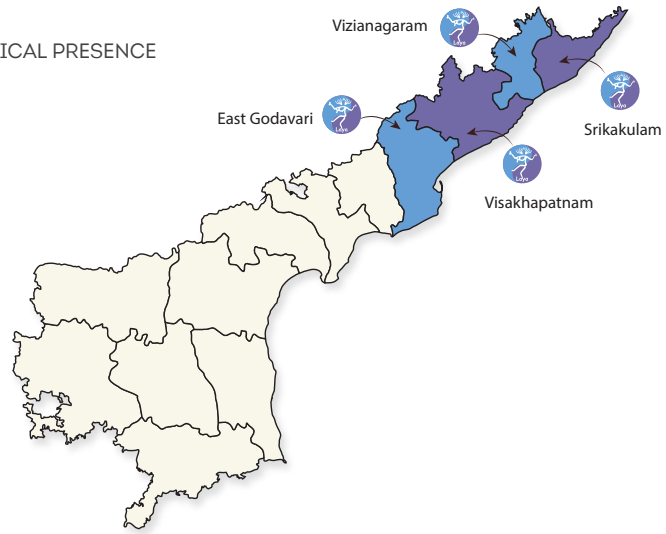




LAYA IS ACTIVELY INVOLVED IN:

- Socio-economic entitlements
- Natural resource management
- Culturally relevant healthcare practices
- Locally relevant renewable energy
- Lifelong learning processes

LAYA'S GEOGRAPHICAL PRESENCE



ANDHRA PRADESH, INDIA



CONCLUSION

Every step, every story counts in the forward march towards change. This isn't the end of the path, it is just the beginning of a new story of change in the making. With a stronger emphasis on climate-friendly interventions to elevate the livelihood of people living in these areas, Laya would like to urge individuals and organisations like yourself to join forces and contribute to the future of the 'Stories of Change'!