# **Research Report**

The Kalam-Raju Stent, constructed by Dr APJ Abdul Kalam for additional Dr Soma Raju in the 1990s s is another low-cost Indian success. They also pointed to the Indigenous coronary stent as an example of the concept of "spin-off profit" from defence research and development.

## Key points about the stent:

- 1. Affordable Healthcare Innovation: Before the Kalam-Raju Stent, imported coronary stents came for as much as ₹70,000. This indigenous alternative cost ₹35,000 and was too expensive for the average consumer, whereas this cost was brought down to ₹10,000. It also compelled global manufacturers to lower their prices. References: THE HEALTH SITE, REDIFF.
- 2. Development Process: Stainless steel first used for corrosion protection in naval ships was adopted to design the stent because of its biomedical nature. This collaboration used Kalam defence technology knowledge and Raju cardiology field knowledge. References: REDIFF.
- 3. Impact on Healthcare: Today, it has been estimated that nearly 1000 patients in India have reaped the benefits of stents. It also significantly cut on imports thus saving on foreign exchange and improving access to life-saving periods. References: <a href="https://doi.org/10.1007/jhearthcare-10.1007/jh
- 4. Recognition: This device was developed through the Society for Biomedical Technology established by Kalam. This innovation made the recipients of the Care Foundation receive the Defence Technology spin-off award in the year 1998. References: <a href="https://doi.org/10.1007/jhear.1998/">THE HEALTH SITE, THE NEW INDIAN EXPRESS.</a>
- 5. Broader Contributions: In addition to the stent, Kalam and Raju later designed the Kalam-Raju Tablet, an exoskeleton healthcare device for rural regions to illustrate their dedication to enhancing healthcare availability. References: <a href="https://doi.org/10.1007/jhtml.com/">THE NEW INDIAN EXPRESS</a>.

## Blog post on recent tribal Padma Shree awardees

The tribal people of India have been holding our cultural knowledge centre, Ecology and sustainable survival strength. But what these women do is often overlooked as unimportant. Three of these tribes exemplify the beauty of progressing from ground-up tribal involvement i.e. **Chami Murmu, Somanna, and Jageshwar Yadav**.

Their achievements are not only personal successes. They also evolved their ancestors' traditions and met contemporary problems.

Chami Murmu: The Guardian of Forests

Now known as the 'lady Tarzan' Chami Murmu of Jharkhand district has pledged her entire existence to fight the evil of deforestation. She also has worked for the revival of lost trees. It started when Ruta first witnessed the massive loss of local forests.

It was due to the outlawed hunting for valuable timber as well as due to growing towns and cities. Her feelings pushed her to do something and thus she formed the **Sahyogi Mahila Mandal**. This is an organization comprised of women who have managed to plant over 2.5 million trees across the state of Jharkhand.

Murmu has been more effective. She has brought thousands of tribal women out of joblessness and poverty. She also makes them embrace cultural practices such as lac and sal leaf harvesting. It is evidenced in her work how it is possible to promote the principle of the conservation of the environment. Also at the same time, she supports economic growth so that people and the planet are protected.

"Eco-awareness and community strength was the vision that she delivered which has paved for sustainable development."

#### References:

- "Chami Murmu: Guardian of Jharkhand's Forests"
- "A Padma Shri for Chami murmu's Reforestation Mission"

## Somanna: Restoring Bamboo Arts&Talents

Somanna, a tribal man from Karnataka, has transformed an age-old practice of bamboo weaving to a new mode of earning. He has also incorporated tribal weaving skills in modern products such as furniture, packaging and ORNAMENTS all being environmentally friendly.

Bamboo work identification and promotion to the younger generation has been achieved through regular workshops and training by Somanna. His innovations have not only given a sustainable source of employment but have also given wished popularity. Eco-friendly consumer goods around the world.

#### References:

"Somanna: Reviving Bamboo Craft"

"Karnataka Artisan Somanna Honored with Padma Shri"

## Jageshwar Yadav: Innovator of Sustainable Farming

In Chhattisgarh, the direction in agriculture has been set by Jageshwar Yadav who introduced indigenous practices of farming coupled with organic farming. Due to unpredictable rainfall and decreasing soil health, Yadav has invented a passion named bio-composting technique and

rainwater harvesting for this soil and diversification of crops. His organic farming has touched the lives of thousands of farmers by helping them produce more with less.

Currently, Yadav spends much time disseminating his experiences through workshops, to encourage farmers in his area, to be more independent. What emerges from Raynor's work is the need to listen to conventional knowledge and integrate that with innovative solutions to help tackle problems of food insecurity.

#### References:

- "Organic Farming Pioneer Jageshwar Yadav"
- "How Jageshwar Yadav Transformed Farming in Chhattisgarh"

#### Conclusion

These tribal achievements suggest the ultimate potential of such folks living within India's indigenous population. Chami Murmu, Somanna, and Jageshwar Yadav portray the principles comprising the concept of sustainable development, community uplift and, power of survival.

In their specifics, the Padma Shri awards they received are not only individual achievements but a recognition of a distinctive lens. The tribal societies have to offer to the world in addressing key chronic issues such as deforestation, cultural erasure, and famine.

While rejoicing, their triumphs the need to constantly empower voices of India's adivasis and include their progress as part of India's growth narrative.

#### References

- "Padma Shri 2023: Tribal Contributions Recognized"
- "Chami murmus Journey to Padma Shri"
- "Karnataka Artisan Somanna Honored"
- "Jageshwar Yadav's Farming Innovations"



