



The end of an era... the beginning of a new one

The challenge of Waste is fast turning into a high potential opportunity, thanks to rapidly changing global outlook. Waste is an unavoidable outcome of many processes, making it available in plenty and, therefore, providing tremendous scope of generating value out of it in a productive and environment-friendly manner.

Current global MSW generation levels are approximately 1.3 billion tonnes per year, and are expected to increase to approximately 2.2 billion tonnes per year by 2025. Waste management models have been tested and proven easily replicable, highly adoptable and cost effective across the globe. The management and effective utilization of waste is an area of focus for Abellon, and in a significant step towards this direction, the company has joined hands with Ahmedabad Municipal Corporation for setting up a 14 MW municipal solid waste-to-energy project.

Apart from waste management, the last few months at Abellon have been about expansion different regions and domains. The company successfully acquired a state-of-the-art pellet manufacturing facility in Canada which is the only ENPlus A1 facility in North America. This acquisition further consolidates its position as one of the key suppliers of high quality North American pellets in Europe. Along with biomass based energy, it also expanded the installed capacity for solar based power generation project from 3 MW to 5 MW. On the R&D front, Abellon successfully developed a closed algae bio-reactor system – the first of its kind system in India, and was selected as part of US-India Consortium for Development of Sustainable Advanced Lignocellulosic Biofuel Systems.

In 2013, we are geared up to roll out many more such exciting projects and initiatives, with a view to bringing in a greener and cleaner tomorrow. We look forward to sharing these updates with our well-wishers through the Abellon Quarterly.

HIGHLIGHTS



Abellon acquires Pellet Manufacturing Facility in Canada

Letter of Award from AMC for Waste to Energy Project

Successful Commissioning of Closed Glass Algae Bio Reactor System

Abellon @ Vibrant Gujarat, 2013

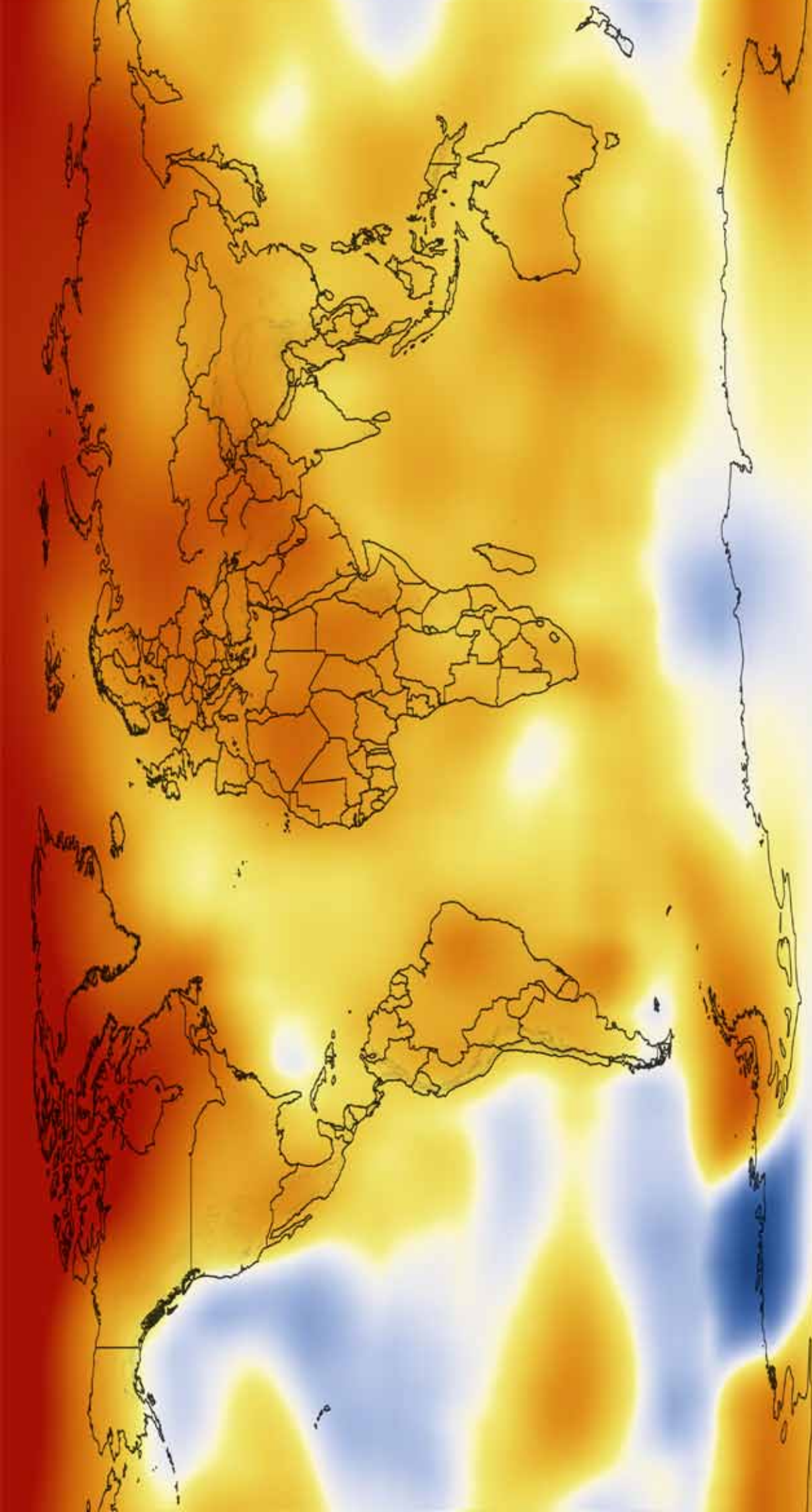
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NASA finds 2012 sustained long term climate warming trend

www.nasa.gov/topics/earth/features/2012-temps.html

According to NASA scientists, 2012 was the 9th warmest of any year since 1880, continuing a long-term trend of rising global temperatures. With the exception of 1998, the nine warmest years in the 132-year record all have occurred since 2000, with 2010 and 2005 ranking as the hottest years on record. NASA's Goddard Institute for Space Studies (GISS) in New York, which monitors global surface temperatures on an ongoing basis, released an updated analysis that compares temperatures around the globe in 2012 to the average global temperature from the mid-20th century. The comparison shows how Earth continues to experience warmer temperatures than several decades ago. The average temperature in 2012 was about 58.3 degrees Fahrenheit (14.6 Celsius), which is 1.0 F (0.6 C) warmer than the mid-20th century baseline. The average global temperature has risen about 1.4 degrees F (0.8 C) since 1880, according to the new analysis.

Abellon acquires Pellet Manufacturing Facility in Canada

Since the last three years, Abellon has successfully established its position as a supplier of high quality pellets to Europe, through its strategic partnerships in the North American region. With the objective of further enhancing this position, and keeping in view long term sustainability of supply, Abellon acquired a state of the art pellets manufacturing facility in Canada, in September 2012.

The manufacturing facility, owned by Trebio Inc., Canada, is one of the largest pellets plants in the country with a capacity of 130000MT/year, and is the only plant outside Europe that is ENPlus A1 Certified.

The facility comes with some unique advantages including guaranteed, long term access to raw material, a strategic location with good rail, road, and port connectivity, and a highly experienced and professional team. It is an export ready facility and has significant expansion possibilities with potential for strengthening our business in Europe and the American markets. Letter of Award from AMC for Waste to Energy Project



Letter of Award from AMC for Waste to Energy Project

On 26th September, Abellon entered into a Public Private Partnership (PPP) arrangement with Ahmedabad Municipal Corporation (AMC) to set up a Municipal Solid Waste Management project. Under the project, the company will be setting up an incineration based power plant in the city of Ahmedabad.

One of the 8 mega cities of India, and Gujarat's numero uno city, Ahmedabad is home to a population of 60 crores, and is at the forefront of development with several successful urban projects to its credit including the Bus Rapid Transit System (BRTS), Riverfront Project, and emerging metro rail project.

One of the key issues to address, identified by AMC, is that of effective management and productive utilization of waste. The city currently generates daily waste of 3500 tonnes. The solid waste based power plant is a step in the direction of building a cleaner, greener, more sustainable city that can serve as a role model in India and internationally.

Abellon is honoured to be a part of this initiative, and committed to building a landmark that the city can be the city's pride and joy.

Successful commissioning of 2MW solar power plant in Sabarkantha district, Gujarat

On 28th December, Abellon successfully commissioned its maiden 2MW solar power project in Sabarkantha district, Gujarat. Covering an area of 12.7 acres, the project is envisaged to reduce carbon emission by approx. 2962 tonnes/annum vis-à-vis fossil fuels.

We take this opportunity to congratulate all our team members who played a crucial role in implementation of both projects.



Successful Trials of Eco-Chulha at Ghana

After successfully establishing its presence in the Indian market, Abellon's Eco-Chulha - a convenient, safe and cost effective large scale cooking solution - was launched in Ghana in the 1st week of October.

A series of trials were conducted in Kumasi and Accra cities of Ghana across restaurants, schools, government institutes and commercial food makers. The effectiveness of the trials was evident from the fact that inquires for availability of the Eco Chulha and consistent supply of fuel pellets have started pouring in.



Abellon selected as part of US-India Consortium for Development of Sustainable Advanced Lignocellulosic Biofuel Systems

Recognizing the need to address climate change, ensure mutual energy security, and build a clean energy economy that drives investment, job creation, and economic growth; Prime Minister Manmohan Singh and President Barack Obama launched the US-India Partnership to Advance Clean Energy (PACE) under the US - India Memorandum of Understanding to enhance cooperation on Energy Security, Energy Efficiency, Clean Energy and Climate Change. This MoU was signed on November 24, 2009 during Prime Minister Singh's visit to the United States. Three key areas- Solar energy, energy efficiency of buildings and second generation biofuel were identified for collaborative research projects.



The Joint Clean Energy Research and Development Center (JCERDC) is a bilateral initiative designed specifically to promote clean energy innovation in terms of scientists and engineers from India and US is funded by the Indian Ministry of Science & Technology, Department of Biotechnology (DBT) and the US Department of Energy (DoE).

The Indo-US JCERDC supports multi-institutional network projects using a public-private partnership model of funding.

A total of 9 applications were received for organizations working with key area second generation biofuels, and Abellon was selected as a part of the consortium. The project addresses 'Development of sustainable advanced lignocellulosic biofuel system, emphasizing sustainable, replicable feedstock production, logistics, processing and biofuels distribution system' in India and the United States. The major goal of this project is to develop and optimize selected non-food biomass based advanced biofuel systems and bio-based products like biogas and lignin based byproducts for both countries. The selected variety is sweet sorghum, pearl millet and bamboo.



Successful Commissioning of Closed Glass Algae Bio Reactor System

On 28th December, Abellon also laid a founding stone in the field of algae bio-fuels for India by successfully commissioning a large scale closed Algae Bio-reactor system, with support from the Ministry of New & Renewable Energy (MNRE), Government of India.

The Algae Bio-Reactor has been designed exclusively by our in-house R&D team. World over only few similar installations have been successfully made, and this is the first closed glass Algae bio-reactor in the country. It has SCADA driven operations and complete control over specific growth parameters.

Algae based bio-fuel technology is one of the most researched topics world-over. Many companies are working in this field and it is poised to become a major industry in coming years. With the depletion of fossil fuels and increasing prices in the world market, it has become even more important for us to find an alternative solution to replace fossil fuels.

Abellon @ Renewable Energy conference

Abellon was invited to participate at a conference **Renewable Energy - Policy Regulation, Technology and Finance** organized by the council of EU Chambers of Commerce in association with European Business and Technology Centre (EBTC) at Mumbai on 25th & 26th September '12.

The conference was supported by Ministry of New Renewable Energy, Government of India and Government of Maharashtra.

One of our senior team members Mr. Agam Vyas showcased Opportunities and focus area of Abellon in Bio-energy sector. The conference was attended by 150 companies and investors from the energy sector.

Abellon @ Vibrant Gujarat, 2013

Abellon participated in Vibrant Gujarat summit at Mahatma Mandir, Gandhinagar from 8th to 13th January 2013 organized by Government of Gujarat. A total of 2,100 delegates from 121 countries attended the event with and signed 2,670 strategic partnership intentions. At six day



exhibition, Abellon displayed all of our products and received over 1000 visitors from diverse backgrounds including industry, farmers, service providers and the general public.

Abellon signed as many as 11 MoUs in different sectors including waste management, solid biofuels, biomass based power, solar power, pellet based cookstoves, and clean energy R&D. Members from our team participated in a seminar on "Zero Waste - A Vision for 21st Century Cities" organized by Ahmedabad Municipal Corporation, Gujarat Urban Development Corporation, and the United Nations Center for Regional Development.

The company played host to three international delegations from Italy, Sweden and Finland. Finally, our eco-friendly dustbins were present across the venues of the Summit and Exhibition, ensuring a clean and green event.



Abellon @ 2nd Biomass West and Central Africa Congress, Accra

Abellon was invited to share its experience and initiatives in the bioenergy sector in Africa, at the 2nd Biomass West and Central Africa Congress in Accra on 4th - 5th October. Delegates from African countries including Ghana, Burkina Faso, Nigeria, Niger, Cameroon, Congo, UK, France, Belgium and Italy were present for the congress.

Our representative made a presentation on "Fuel for Food" focusing on the need for Improved and Clean Cooking in African Countries, and highlighting Abellon's effort to provide a Clean Cook Stove along with eco-friendly fuel Pellets. We also had the opportunity to conduct a live demonstration



of our clean cook stove (Eco Chulha), after the presentation. Delegates expressed a lot of enthusiasm for the cook stove technology, which is efficient, smokeless, safe and hygienic. Attending delegates from other African countries also expressed interest in launching the Eco-Chulha in their country, and confirmed their support for the same. Attending delegates from other African countries also expressed interest in launching the Eco-Chulha in their country, and confirmed their support for the same.

Abellon @ IIT, Gandhinagar

Our MD and CEO, Mr. Aditya Handa, was invited to speak at a seminar in IIT-Gandhinagar on the topic Imagining India. The seminar was conducted by prestigious institute to get the views of business leaders on their perspective of future India. Mr Handa was one of the speakers at the seminar and provided the perspective regarding future energy needs of India and its solution. It was well received by the audience and the other dignitaries.



Abellon @ 2nd Annual Canada-India Business Forum

On the occasion of an official visit to India by Canada's Prime Minister, the Canada-India Business Council (C-IBC) hosted its 2nd annual Canada-India Business Forum at the Taj Mahal Hotel in New Delhi on November 6th, 2012. The program of more than 35 expert speakers drew over 250 senior executives and policymakers from both countries, with hundreds more joining the opening reception the previous evening. Engaging discussions and an impressive level of participation cemented the Forum's reputation as the top annual meeting for leaders of the bilateral business relationship. Under the theme "From Crisis to Growth", plenary panels featuring top executives and industry representatives addressed India's growth prospects, corporate social responsibility practices and an action plan to boost the bilateral relationship.

Senior representatives from Abellon were invited to be a part of the reception and meeting, in recognition of the position the company occupies as a key player in the bioenergy and pellets segment in Canada.



Abellon @ Bioenergy Week - Brasilia, Brazil

On invitation from the Global Bioenergy Partnership (GBEP), a representative from Abellon participated in the Study Tour for Capacity Building and Bioenergy Week hosted by GBEP & Government of Brazil in Brasilia, from 18th to 23rd March 2013. The invitation was received as a follow-up based on interactions during the World Future Energy Summit in Abu Dhabi in 2012. The event was attended by over 80 delegates from the American, African, and Asian regions.

During the visit, we had the opportunity to showcase Abellon's integrated bioenergy model specifically highlighting the sustainable collection of biomass and the use of biomass for power generation, heating, and cooking. The presentation was well received by the delegates and cited as one of the

best, generating significant interest in Abellon's model and business areas. Through the interactions and participation, Abellon has been invited by GBEP and FAO to participate in the "Sustainable Energy For All" initiative that was launched by the Secretary General of United Nations.

Abellon @ Agritech Asia 2012

During 3rd to 6th September 2012, Abellon Agrisciences participated in the Agritech Asia 2012 - an international agricultural event under the aegis of Vibrant Gujarat - supported by Government of Gujarat. The event aimed at bringing together the very latest agriculture technologies and professionals to interact, understand buyer-seller needs, and bring awareness to all segments of end users.

Abellon Agrisciences exhibited its range of organic fertilizers, large-scale bamboo farming project and agricultural R&D initiatives such as tissue culture. Over 1200 delegates and farmers visited our stand to learn more about our agricultural offerings and projects.





Launch of "Halla Bol"

On 15th March 2013, Abellon Agrisciences formally launched "Halla Bol" - a year-long campaign to collectively formulate and announce vision and strategies, bringing together team members from head office and the sales teams across Gujarat, MP and Rajasthan regions.

The opening session of the program was by Guruji Shri G. Narayana on the subject of team building, inspirational leadership, work planning and organizing as well as spiritual philosophy at work.

The launch was kicked off on the same evening, at Abellon's state-of-the-art fertilizers manufacturing facility in Vitthalapara Near Surendranagar, Gujarat. Before formally launching Halla Bol, the sales team was also invited to surrender their pain areas and grievances, and efforts were made to resolve all of them to ensure an atmosphere of positivity and receptiveness. After a formal welcome of the sales team members, senior team members interacted with them and shared the potential of organic fertilizers towards positively changing the current scenario of deteriorating agricultural productivity, while contributing to reduction of GHGs arising from agricultural activities. Following the interaction, the theme was launched amidst the applause and cheering sounds.

The launch event was followed by detailed, extensive classroom sessions on business prospects, agricultural scenario, product technical details, operational terms and conditions, to name a few. The sessions also included individual training on market potential mapping, approaching customers, product briefing, best practices for product demonstration etc. The program closed on 17th March leaving in its wake clarity of goals, direction and positive energy within team members who pledged to perform with excellence and achieve their respective goals for the year.



Lakshya 2012 - 13

On 7th and 8th of Sept 2012, Poornakumbha team members got together at Pavagadh, near Vadodara, Gujarat to celebrate a successful end to Lakshya 2011-12 (a biomass collection season for 2011-12) and subsequent extension of Lakshya 2012-13 for the forthcoming season.

The event started with an eractive session by Poornakumbha MD & CEO Mr Aditya Handa, on Poornakumbha's role and key imperatives for the future path. Leaders from various regional teams presented the road map and action plan for the next season in terms of collection network and its expansion in their respective regions. 10 outstanding team performers were felicitated with a recognition mark - "Green Soldier" - for their excellent contribution towards Poornakumbha's vision of co-creating a green and clean future through the philosophy of generating "Value-out-of-Waste". Along with this, a Certificate of Appreciation was distributed to each member of the team. The event was a cheerful gathering with a visit of Fun World near Vadodara and scaling the top of the mountain Pavagadh, in the face of a heavily cloudy and rainy atmosphere. Overall, the event remained an excellent platform for bringing the team members on a common platform of information-sharing, motivation & performance recognition as well as enjoyment.





Janmashtami Pooja 2012



Celebration of Dussera



Garba Ramzat 2012 Celebration



Get to Gather at Vithalapara



Saradpoornam 2012



Sports Fiesta



Women's Day Celebration



Kavi Sammelan



Book Review:

FLOW: For Love of Water by Irena Salina

The incredible, infuriating documentary “FLOW: For Love of Water”, is a film about the industry and consumption of humankind’s most precious resource: water. The film concentrates on the big business of privatization of water infrastructure, which prioritizes profits over the availability of clean water for people and the environment.

The film won the Grand Jury Award at the Mumbai International Film Festival and the Grand Jury Award for Best Documentary at the United Nations Film Festival. Salina builds a case against the growing privatization of the world’s dwindling fresh water supply with an unflinching focus on politics, pollution, human rights, and the emergence of a domineering world water cartel.

Flow is seeking signatures for a petition to the UN: “Article 31: Everyone has the right to clean and accessible water, adequate for the health and well-being of the individual and family, and no one shall be deprived of such access or quality of water due to individual economic circumstance.”



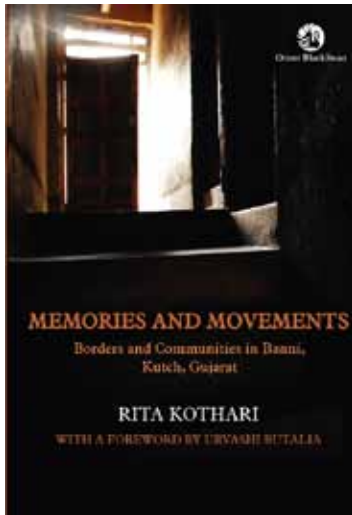
Movie Review:

Memories and Movements: Borders and Communities in Banni, Kutch, Gujarat, by Rita Kothari

The book “Memories & Movements”, which tells the story of Banni – a region and people few had heard of until a few years ago. The author explores the history of a community lost in time and place, and its attempts to come to terms with questions of belonging and borders, change and modernity, and growing global recognition.

Located on the international border between Kutch and Sindh, Banni was once a rich pastoral landscape that lost its wealth to the encroaching desert, and rampant growth of the invasive species prosopis juliflora. Today, Banni has captured the imagination of the global travel connoisseur, for its untouched beauty and unchanged way of life, its masterpieces of handicraft and music. At the same time, it is seeing the advent of industry, and the emergence of economic opportunities, as well as the trappings of modernity.

The author also tells the story of the entrepreneurial success and resultant social mobility of a hitherto ‘untouchable’ community. In presenting a picture of Banni’s complex, tiered society, she shows how its people navigate social borders on an everyday basis and transcend territorial borders through memory, song and story.



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