

# Curriculum Vitae

1. Name : **Dr. Xavier SAVARIMUTHU, SJ**
2. Address : St. Xavier's College, 30 Park Street, Kolkata-700016
3. Telephone/Mobile : **+91-33-22551-202**
4. DOB : **03.02.1971**
5. E-Mail : **envsxavi@sxccal.edu**
6. Departments : **Depts of Environmental Studies, Microbiology & Business Administration**
7. Profession : **Teaching Environmental Science, Environmental Microbiology & Biotechnology, Environmental Management, Research in Environmental Sciences.**
8. Designation : **Head and Associate Professor, Environmental Studies.**  
: **Supervisor for guiding Ph.D students, University of Calcutta, Viswa-Bharati University Since 2013.**  
: **International Exchange Program Professor, 2013. Santa Clara University, California, USA.**  
: **Donald MacLean Chair, 2016. Saint Joseph's University, Philadelphia, USA.**

9. Professional Qualifications: M.sc with NET, Ph. D, B.Th in Theology.

- Appointed as **Supervisor for guiding Ph.D students** under University of Calcutta in 2013.
- **Doctor of Philosophy (Ph.D.)** in Environmental Science, University of Kalyani, India. Awarded degree in January 2006. (Research Scholar under the Fogarty Program of UC Berkeley University Arsenic Research Program, California.)
- **Master of Science (M.Sc.)** in **Environmental Science**, Bishop Heber College, Bharathidasan University, Tiruchirappalli, India.
- **Bachelor of Science in Zoology (Honours)**, Scottish Church College, Under Calcutta University, Kolkata.

10. Topic for Ph.D Research.

“Demographic status and epidemiological pattern”- a study on environmental health impacts of arsenic affected population in West Bengal. In January, 2006.

**NB:** Carried out the doctoral research under the guidance of **Allan H. Smith (University of California, Berkeley)** who was a member of the NRC Subcommittee on Arsenic in

Drinking Water that reviewed EPA's risk assessment for arsenic, under the Fogarty Program.

## 11. Certifications, Accreditations and Awards

- a) Appointed as a **supervisor** for guiding Ph.D students under Calcutta University.
- b) Best Proficiency in M. Sc in Environmental Sciences
- c) Best Project work in M. Sc in Environmental Sciences
- d) **First rank and Gold medal** in M. Sc from Bharathi Dasan University

## 12. Invited Lectures Presented /Course Conducted

### 12a. International

1. **"NATURAL RESOURCE DEPLETION AND ENVIRONMENTAL ETHICS - FROM A HYDROLOGICAL PERSPECTIVE"**. In Conference on "Conserving and enhancing global resources: conservation, food, climate adaptation", Campion Hall, Jesuit College at the University of Oxford, UK. December 07, 2017.
2. **"IT'S A THIRSTY WORLD; WHAT IS OUR ANSWER?"**, Laudato Si': Environment is Relationship, Ecojesuit participation in COP23, Bonn, Germany, 6 to 17 November 2017
3. **"Environmental Justice and Human Dignity: A Jesuit Involvement in Mitigating Arsenic in Water in India"**, International Atlas Week Event Busch Student Center 253A, St. Louis University, Missouri, USA, April 07, 2016.
4. **"When Nectar Turns To Poison: The Enigma Of Arsenic Contamination In Drinking Water"**, Donald McLean Chair Lecture, Doyle Banquet Hall, Saint. Joseph's University, Philadelphia, USA, April 05, 2016.
5. **"It's A Thirsty World; For Water Is Life And It's Precious"**, Biology Lecture Series, The Science Centre, Saint. Joseph's University, Philadelphia, USA, March 02, 2016.
6. **"Water Sustainability Issues for India with its Social and Ecological Impacts"**, Conference on Transformative Land and Water Governance, organized by Environmental Science for Social Change (ESSC), Pine Hills Hotel, Malaybalay City, Bukidnon, Manila, Philippines, 21-23 May, 2014.
7. **"Water Privatisation: Asia's Concern"; "World Water Week"**, Stockholm, Sweden. September 1st-7th, 2013.
8. **The Microbiology of Arsenic Contamination of Groundwater"**, Santa Clara University, Department of Biology and Public Health, California, USA, November 11, 2011.

9. **“Arsenic Contamination of Groundwater- A major Public Health Threat in South Asia”** , USA, Seminar Series on “Biology 100; Hot topics in Biology”, Department of Biology, Santa Clara University, California, May 13, 2011.
10. **“The Goodness in Religion and Science”**- International Conference on Santa Clara, “Bridges to Infinity; Humankind, God and Scientific Experience”- Department of Engineering, Santa Clara University, California, USA, May6-7, 2011.
11. **International Exchange Program Courses: Environment and Public Health in Asia**, Dept. of Public Health, Santa Clara University, California, USA. March-June, 2011.

## **12b. National**

1. **“To leave our footprint for the future”**, an environmental awareness lecture to the nature club members of St. Xavier’s Collegiate school, Kolkata, 27<sup>th</sup> July 2019.
2. **“THE ENIGMA OF SUSTAINABILITY”**, in Sustainability and Business Conference “SUSBUS 2018” on “Sustainability and Inclusive Growth”, IIM Calcutta, Joka, India. January 14<sup>th</sup> 2018.
3. **“Our common Home and Hydrosphere; Startling Facts About Water ”**, Nature Club, St. Xavier’s Collegiate School, Kolkata. August 31, 2015.
4. **The New Human Epoch -“Anthropocene” - Is it our Paradise or our Destiny?**, Faculty Improvement Lecture, Loyola College, Chennai, Tamilnadu. December 5, 2014.
5. **“Water, an Issue not to be Watered Down and Its Toxicological Impacts on Public Health”**, Faculty Improvement Lecture, Faculty and Staff of St. John De Britto College, Madurai, Tamilnadu, August 22, 2014.
6. **“Environment, Economy And Public Health: - From A Hydrological Perspective”**, Invited Lecture Presentation at Agro-Economic Research Centre;Visva-Bharati (University), Santiniketan; India, 18<sup>th</sup> November, 2013.
7. **“Quest And Questioning Of Science And Religion: “International Seminar On Science & Religion”** , “The Unknowable And The Counterintuitive” , St. Xavier's College, Kolkata. 8<sup>th</sup> July, 2013.
8. **“Ground Water Sustainability for West Bengal”**, Invited talk during the Earth summit on Ecological Sustainability, St. Xavier’s School, Durgapur, West Bengal, July 14, 2012.
9. **“Arsenic Hydrology in Bengal”**, Recent concerns in Environmental Issues, Faculty improvement Program, Interdisciplinary Workshop, SXC, Kolkata, February 19, 2011.

10. **Environment and Public Health**, Dept. Environmental Studies, St. Xavier's College, Kolkata, India, January-May, 2012. Students of St. John and Benedict University, Minnesota, USA.

### **13. Book and Paper Publications**

13a. **Text Book: Fundamentals of Environmental Studies**, ISBN: 9781107536173, Cambridge University Press, November 2015.

13b. **Pioneering Environmental Sustainability through Technological Innovation : A Case- Based Approach** , An Edited Book (2018), Speaking Tiger Publications.

13c. Teratotoxicity : Developmental Toxicity due to Environmental Toxicants , Proceedings of the 6<sup>th</sup> International Conference on Ecotoxicology and Environmental Sciences, New Delhi. (2018), ISBN 978-81-928924-6-7.

### **13b.International**

1. **"Modelling and Forecasting Energy Consumption and Carbon Dioxide Emissions in India"**, International Journal of Research in Social Sciences Vol. 9 Issue 7, July 2019, ISSN: 2249-2496 Impact Factor: 7.081
2. **"Effect of scopoletin on monoamine oxidases and brain amines"**, Mahua Basu, Kamlesh Mayana, S. Xavier, S. Balachandran, Nibha Mishra, **Neurochemistry International**, 93 (2016) 113e117. <http://dx.doi.org/10.1016/j.neuint.2016.01.001>. 0197-0186/© 2016 Published by Elsevier Ltd.
3. **The Future We Want Requires "Reconciliation With Creation"** , *Promotio Iustitiae, No111, 2013/2*, Social Justice and Ecology Secretariat, Rome, July, 2013.
4. **Economics Of Environment Of Indian Agriculture In The Era Of Global Warming**, International Conference On Trade, Markets And Sustainability (Ictms 2013), Symbiosis Institute Of International Business (Siib), Pune, Maharashtra, Feb 22,23, 2013.
5. **Arsenic concentrations and bacterial contamination in a pilot shallow dugwell program in West Bengal, India**, *Journal of Environmental Science and Health Part A* (2007) **42**, 89–95. © Taylor and Francis 2007: DOI: 10.1080/10934520601015834; ISSN: 1093-4529 (Print); 1532-4117 (Online)
6. **Seasonal variation of arsenic concentration in tube wells in West Bengal, India**. *Journal of Health, Population and Nutrition* (2006) **24(3)**:277-281 ISSN 1606-0997
7. **Implementation Of Modified Shallow Dugwells Through Community Based Programs To Provide Arsenic Safe Water In West Bengal, India**, *Epidemiology*, Volume 15, Number 4, July 2004, © 2004 Lippincott Williams & Wilkins.

8. **A Dugwell Program to Provide Arsenic-Safe Water in West Bengal, India: Preliminary Results:** *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substances and Environmental Engineering* (2003), **A38 (1):** 289-299.  
MARCEL DEKKER, INC. • 270 MADISON AVENUE • NEW YORK, NY 10016, DOI: 10.1081/ESE-120016895 1093-4529 (Print); 1532-4117 (Online)

### **13b. National**

- 1) **"Arsenic Contamination and Its Public Health outcome in Bengal"**, 40 years of bringing Hope and Healing, Seva Kendra Ruby Jubilee Issue, pp 58-60, December, 2013.
- 2) **"Greenhouse gases and Global warming; The Enigma of Mitigation Policies"**, Two day national Seminar on "Global Warming and Its social and Economic Effect", Tarakeswar Degree College, Tarakeswar, Hooghly, West Bengal, 2<sup>nd</sup>-3<sup>rd</sup>, December, 2013. Seminar Volume-1.
- 3) **Fr. Eugene Lafont, "A scientist Par Excellence"**, Calcutta Jesuits and Friends, July-September Issue, 2013.
- 4) **Arsenic Victims in Bengal: Quest and Questioning**, *Tatwa Viveka, Student Journal of Theological Search*, Vidyajyothi, pp167-175, New Delhi, (2007)
- 5) **Freeing 12,000 villagers from deadly effects of arsenic water**, Jivan: Magazine on News and Views of Jesuits in India, June 2006. <http://www.jcsaonline.com/jivanJul06.htm>
- 6) **"Global warming and Water war"-An investigation into humanity's war on nature for water.** Proceedings of the National Seminar on Global Warming and our Water Resources of Jadavpur University (2003).
- 7) **"Project Well"** News Letter, October 2002 , 2003, 2004 Issues
- 8) **Young Jesuits of Calcutta Fight the Arsenic Menace:** Jivan: Magazine on News and Views of Jesuits in India (2002), **1 (8):** 19-20.
- 9) **My Experiment with Arsenic:** Calcutta Jesuits and Friends, (2002), Easter Issue: pp20-21

### **14. Papers Presented and Abstracts Published In International & National Seminars**

1. **"The Sun Of Goodwill: The Economic Benefits Of Clean Energy Transition"**, Mundelein Auditorium, Loyola University, Chicago, March 17-19, 2016.
2. **"Greenhouse gases and Global warming; The Enigma of Mitigation Policies"**, Two day national Seminar on "Global Warming and Its social and Economic Effect", Tarakeswar Degree College, Tarakeswar, Hooghly, West Bengal, 2<sup>nd</sup>-3<sup>rd</sup>, December, 2013.

3. **Corporatization And Commoditization Of Water: Its Social And Ecological Impacts. Towards A Framework For Social Action**, Jesuits In Social Action (JESA), Jesuit Conference Of South Asia (JCSA), New Delhi, March 13-14, 2013.
4. **Industry - Academia Symphony; The Road To Sustainable Development**, International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
5. **CSR : A Green Path Or Just Another Red Signal ?**, International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
6. **CSR - Is It Green Or Greenwashing ?** International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
7. **CDM: Saving The World Or Watching It Burn?** International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
8. **CDM: Have Money; Will Pollute**, International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
9. **Is India Rich Enough To Talk About Csr?** International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
10. **Will Gulliver Die A Guyver? The Boom Of Environment Stewardship And Its Fated Doom**, International Conference on "Environmental Stewardship And Corporate Social Responsibility (Csr)", St. Xavier's College & ITC Limited, Kolkata. Feb 22-23, 2013.
11. **"Industrial Academia Interface towards Sustainable Development"**, Environment and Energy Conclave 2011, Bengal Chamber of Commerce and Industry, Kolkata, August 26-27, 2011.
12. **"Corporate Social Responsibility (CSR), an impetus to awaken the individual towards action"**, in Ist Network 4 Green Earth Summit, ITC the Sonar, Kolkata, India, 11-12<sup>th</sup> November, 2010.
13. **India at 60, Glass still half-filled! Whom to blame? Global warming or MNCs?** Seminar on "Economic Development with human Face", Jesuit Economic Association, St. Xavier's College, Kolkata, India. 27<sup>th</sup> February, 2010.
14. **"Global warming and Water war"-An investigation into Humanity's waging war on nature for water.** International Conference on Global Climate Change Centre for Environmental Studies and Integrated Science Education and Research Centre, Siksha-Bhavana, Visva-Bharati, Santiniketan., 19-21 February, 2010.

15. **Inorganic Arsenic Toxicity, Its Health Impacts and Mitigation through Traditional Dugwells in Parts of West Bengal.** Paper presented in 5<sup>th</sup> International Conference on Arsenic: Developing Countries Perspective on Health, Water, Environmental Issues, Dhaka Community Hospital, Dhaka, Bangladesh, February 15-17, 2004.
16. **Implementation of Modified Shallow Dugwells Through Community Based Programs to Provide Arsenic Safe Water in West Bengal, India.** The International Society for Environmental Epidemiology (ISEE) and New York University, Washington Square South, New York City, NY, USA, August 1-4, 2004.
17. **"Arsenic Mass Poisoning (Arsenicosis)"- An Impending Epidemic Unfolding Itself in South East Asia.** Paper presented in National Seminar on Recent Advances in Stress Physiology, Toxicology and Immunology, University of Kalyani, West Bengal, India, 27-28<sup>th</sup> November, 2003.
18. **"Dugwell" - A Viable Option to Combat the Incidence of Arsenic Toxicity in Ground Water and Impending Threat of Arsenicosis Epidemic in Parts of West Bengal:** Paper presented in National Seminar on Environmental Pollution and Its Management, organised by University Science Instrumentation centre, Jadavpur University, Kolkata, India. 12<sup>th</sup> December 2002.
19. **Application of Global Positioning System (GPS) in Formulation of Sustainable Arsenic Mitigation Plan:** Papers Presented in National Seminar on Geography and Applied cartography organised by National Atlas and Thematic Organization, Dept. of Science and Technology, Govt. of India, Salt Lake, Kolkata, India. December 10-12, 2002.
20. **Global Warming and Its Impacts on Rural Water Resources:** Paper presented in National Seminar on Global warming and Our water resources by Global Change Programme (Jadavpur University) and West Bengal Academy of Science and Technology, , at Jadavpur University, Kolkata, India, 14-15 April 2002.
21. **"Arsenicosis"- the untold miseries caused by an underground reality- 'Arsenic' from an epidemiological perspective:** Paper presented in National Seminar on Recent Advances in Molecular Physiology, University of Kalyani, West Bengal, India, 4-6 February 2002.
22. **"Arsenic"- the underground killer of millions in West Bengal and Bangladesh- from a toxicological point of view:** Paper presented at the Fourth National Symposium on Student's projects, organized by International group for Correlation Analysis in Chemistry at Bishop Heber College, Tiruchirappalli. (April 2000).

#### **15. Convener: Inetrnational Conferences.**

1. St. Xavier's Global Earth Summit-IV, International Seminar on "Global Climate Change and Water Disasters", St. Xavier's College, Kolkata. March 27-29, 2015

2. International Seminar On Science & Religion, "**The Unknowable And The Counterintuitive**", St. Xavier's college, Kolkata. 8th July, 2013.
3. St. Xavier's Global Earth Summit-III, International Conference On "**Environmental Stewardship And Corporate Social Responsibility (CSR)**", SXC In Collaboration With Santa Clara University, SXC, Kolkata, 22-23, February, 2013.
4. St. Xavier's Global Earth Summit-II, An International Conference on "**The Environmental Migrant- The Human Face of Climate Change**", EVS department, SXC, Kolkata, March 29-30, 2012.
5. St. Xavier's Global Earth Summit-I, An International Conference on " **A Sustainable Earth, Nihil Ultra**, EVS department, SXC, Kolkata, March 11-12, 2011.

#### **16. Editor: (Environmental and Ecology Journal & Bulletin)**

1. Self-emptying service- A Virtue; **Goethals News**, Volume XVIII, No. 1, January-March, 2015. ([www.goethals.in](http://www.goethals.in))
2. Journal on "**Modern Issues in Environmental Studies**", St. Xavier's College, May 15, 2014.
3. **Goethals News**, "**Science and Religion**", Volume XVII, No. 2, April-June, 2014. ([www.goethals.in](http://www.goethals.in))
4. **Goethals News**, " **Environmental Stewardship and Corporate Social Responsibility**", Volume XVI, No. 2, April-June, 2013. ([www.goethals.in](http://www.goethals.in))
5. **Goethals News**, " **Climate Change and Environmental Refugees**", Volume XV, No. 1, January-March 2012.

#### **17. Involvement in Consultancy - GO/NGO/Corporate Sector**

- 1) Presently involved in **arsenic mitigation programs** in North 24 Parganas district in West Bengal with the **Project Well Berkeley in Coordination with AQUA Welfare Society** as a consultant and a resource person for arsenic awareness programs.
- 2) Research Associate in **a combined Arsenic Exposure Study** of UC Berkeley University, California, USA and Institute of Post Graduate Medical Education & Research (IPGMER), Kolkata, India,(2002-2005)
- 3) (Was) A trainee under Fogarty International Center of National Institute of Environmental Health Sciences (NIEHS), the UC Berkeley International Training and Research Program in Environmental and Occupational Health (ITREOH), USA.
- 4) Worked as a **Program Coordinator** on Sustainable agriculture, Awareness programs on the impacts on the usage of chemical pesticides, Arsenic health impacts in South 24 Parganas district of West Bengal, undertaken by the Loka Kalyan Parshad, Kolkata



## 18. Training and Certifications

- 1) Participated in the **United Nations' Conference on Climate Change (COP-21), Paris, France, November 30-December 06, 2015.**
- 2) **Attended** an Environment and Energy Conclave 2010 on **"From Copenhagen to Mexico: Business Sustainability in Emerging Scenarios"**, organized Bengal Chamber of Commerce at ITC Hotel - The Sonar, Kolkata 700 046, Friday, 27<sup>th</sup> and 28<sup>th</sup> August, 2010
- 3) International Conference on Global Climate Change Centre for Environmental Studies and Integrated Science Education and Research Centre, Siksha-Bhavana, Visva-Bharati, Santiniketan. 19-21 February, 2010.
- 4) Attended UGC sponsored National Level Seminar on **"Governing Business in the 21<sup>st</sup> Century - Opportunities and Challenges,"** St. Xavier's College (Autonomous), Calcutta, in collaboration with Bengal Economic Association. 20<sup>th</sup> and 21<sup>st</sup> November, 2009.
- 5) Attended the Two-day Teachers' Training Program on **"Environment and Pollution Control"** by Central pollution Control Board, Govt. of India, held between 14-15 November, 2002, Kolkata, India.
- 6) Attended computer course titled **"Intel Teach To The Future"** from 12<sup>th</sup> March to 11<sup>th</sup> April 2002 conducted by Intel Innovation in Education at Kolkata, India.
- 7) Attended a Refresher Course on **"Environment and Law"** from 28<sup>th</sup> October to 18<sup>th</sup> November 2001, organised by Shivtosh Mookerjee Science Centre, Kolkata, India.
- 8) Participated in **Tropical Mountain ecology Summer Camp** conducted in June 2000 by *Au Sable Institute of Environmental Studies, Mancelona, USA.*  
N.B. Obtained an "A" Grade in the assignment given by the same institute

## 19. Major Interests and Future Aims And Objectives

- 1) Health Exposure Study and Epidemiology.
- 2) Toxicological Research in reference to Pesticides' Impacts on public health.
- 3) Alternative Water Sources and Arsenic Mitigation Measures: especially promotion of traditional Dug-wells for combating arsenic poisoning in West Bengal.
- 4) Geo-hydrological studies on groundwater contaminations.
- 5) GPS, GIS and Remote Sensing Applications
- 6) Research on alternative water source technologies
- 7) Environmental Microbiology and Biotechnology.