

MSS RESEARCH 2014

50 Years of Social Science Research

1970-2020



The Mother's Service Society

No. 5, Pudukkottai Street, Venkata Nagar

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INTRODUCTION

MSS Research is the social science research division of The Mother's Service Society, a non-profit organization established in Pondicherry, India in 1970. The activities of the Society are inspired by the integral philosophy of **Sri Aurobindo** and **The Mother** and organized to extend and apply their vision in different fields of life. Most of the research papers prepared by MSS during the past decade are available at www.mssresearch.org.

The Society's objectives include a wide range of educational and research activities in the field of socio-economic development. MSS also operates **Primrose School**, an experimental school for primary and secondary education affiliated to Council for the Indian School Certificate Examinations (CISCE), New Delhi, an education board established by Cambridge University. Further information regarding the school is available at www.primroseschool.org.

MSS also carries on activities in the field of social, agricultural and rural development, business management, applied spirituality and other fields. More information on these activities is available at www.motherservice.org.

The Society is approved as a tax-exempt educational institution under section 10 (23C) (vi) of the Income Tax Act and as a Scientific and Industrial Research Organization (SIRO) by the Department of Scientific & Industrial Research, Government of India. Donations for research purposes qualify for 100% donor tax exemption under section 35(1) (iii) of the Indian income Tax Act. MSS is also registered as a charitable educational organization under section 12 AA(b) and approved for donor tax exemption under section 80G(5)(vi).

This report contains an overview and summary of the Society's educational and research activities from its inception through 2020.

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INTRODUCTION.....	1
I. CURRENT RESEARCH ACTIVITIES	2
I. DEVELOPMENT THEORY.....	11
II. EMPLOYMENT.....	17
III. LAW AND GOVERNANCE.....	30
IV. MONEY	33
V. INTERNATIONAL COMMISSION ON PEACE & FOOD	37
VI. PEACE & SECURITY	42
VII. EDUCATION	49
VIII. MANAGEMENT	55
IX. NEW PARADIGM	64
X. WORLD ACADEMY OF ART & SCIENCE.....	66
XI. PSYCHOLOGY	72
XII. SCIENCE	74
XIII. LITERARY CRITICISM & CINEMA	76
XIV. INDIAN DEVELOPMENT & AGRICULTURE	78
XV. INTERNET PROJECTS	93
XVI. PUBLISHED ARTICLES & WORKING PAPERS (THIS HAS TO BE UPDATED AFTER 2012).....	95

I. CURRENT RESEARCH ACTIVITIES

(FY 2020-2021)

The Mother's Service Society is an educational and social science research institute established in Pondicherry in 1970 and registered under the Society's Registration Act. It is recognized and approved by the Department of Scientific and Industrial Research and exempted by the CBDT u/s 10(23c) and 35(1)(iii) of the Income Tax Act. MSS conducts research on a broad range of subjects related to economics, education, management, governance, history, political science and social development. It collaborates with partner organizations international and is recognized as an International Center of Excellence of the World Academy of Art & Science (USA) and as a Charter Member of the World University Consortium (USA).

1. INTERNATIONAL CENTER OF EXCELLENCE OF THE WORLD ACADEMY OF ART & SCIENCE

- 1) In June 2020, MSS was recognized as an "International Center of Excellence of the World Academy of Art & Science", only one of two organizations in the world which have received this distinction.

2. GLOBAL LEADERSHIP IN THE 21ST CENTURY (GL-21)

- 1) This project was jointly launched by the World Academy of Art & Science (WAAS) and the United Nations Office at Geneva (UNOG) in June 2019 to

accelerate progress on pressing challenges and emerging opportunities, and accelerate implementation of the SDGs. MSS is a key collaborating partner in the project. In November 2019 MSS participated in two executive briefings at UNOG for UN agencies, UN member states and leading international NGOs. In December MSS collaborated in conducting an online survey of these agencies and other collaborating partners in order to identify fundamental principles and effective strategies that can be applied to consciously accelerate the process of global social transformation. MSS staff have been providing administrative and research support for the project. **Garry Jacobs** heads this project.

- 2) On March 5-7, 2020, MSS participated in the 2nd World Sustainable Development Forum (WSDF) at Durango, Mexico. A meeting with 35 representatives of international youth groups, including Fridays for the Future, enabled WAAS to enlist the active participation of youth groups in GL-21.
- 3) Part I of an online roundtable on “Catalyzing Rapid Social Transformation” was held electronically on March 11, 2020 over a webinar to discuss topics included in the Dubrovnik Roundtable originally scheduled on March 8 evening to March 11 afternoon and subsequently postponed due to the Corona Virus threat. MSS staff presented at the conference.
- 4) The Workshop on Global Leadership held on May 11, 2020 examined what transformative changes would be required to meet the aspirations of future generations. The workshop was designed to provide a strategic planning opportunity for youth leaders to discuss and decide what their contribution should be to the program of the forthcoming summit on Global Leadership at the UN organized by the World Academy of Art and Science (WAAS). MSS staff participated in the econference.
- 5) “Globalistics 2020: Global Issues and Future of Humankind” commemorated the 75th anniversary of the UN, the 60th anniversary of WAAS and the 50th anniversary of The Club of Rome with a special online session “Global Social Transformation.” The e-conference inaugurated Globalistics 2020, the 6th International Scientific Congress, originally scheduled to take place in Moscow. The online sessions organized by Moscow State University initiated a rich discussion among the participants on global leadership and social transformation, which are the focus of the UNOG-WAAS’ project ‘Global Leadership for the 21st Century.’ **Garry Jacobs** gave introductory remarks.
- 6) This multistakeholder, multi-sectoral project resulted in an econference on “Strategies for Transformative Global Leadership” on June 15-19, 2020. The conference involved over 200 speakers and 35 panel discussions. MSS is a core partner in this project. The project involved consultations with IGOs, nation states, business, scientific research and educational institutions, civil society and youth organizations. MSS presenters included M. Chandrasekaran, Janani Ramanathan, and S.S. Sreejith. **Garry Jacobs** delivered keynote addresses at the opening and closing sessions.
- 7) MSS staff prepared the Phase I Interim Report of the Global Leadership Project in collaboration with WAAS which was submitted and accepted by the UN in September 2020. This interim report was based on the research findings of 14

working groups and conferences involving a cross-section of more than 250 experts from multilateral institutions, governments, business, academia, civil society and the arts. The report concludes that in spite of the unprecedented global challenges, there is a growing recognition among a wide range of international stakeholders that the current crisis situation also offers a unique opportunity to launch humanity into a more dynamic, equitable, resilient, and sustainable phase of global social evolution.

- 8) The Permanent Secretariat of the World Summit of Nobel Peace Laureates and the World Academy of Art and Science (WAAS) organised an online Youth Leadership Day on December 11, 2020. The workshop topics covered human rights, peace education, science, engineering and technology, the arts, the economy, disarmament, climate change, and more. During the workshop, youth leaders from five continents shared their unique experiences, as well as presented highlights of practical projects and initiatives they have started. MSS organized the conference. **Garry Jacobs** gave the introductory remarks.
- 9) The Youth Leadership Network strategic discussion held on December 13, 2020 aimed to gather movements for an inter-generational discussion aimed at preparing youth contribution in the Global Leadership Summit organized by the UN Office in Geneva and the World Academy of Art and Science. This webinar included a strategic conversation with guest speakers from multiple organizations followed by an in-depth discussion on how to mobilize youth social movements. MSS organized the event. **Garry Jacobs** introduced the conference and gave the closing remarks.
- 10) “Global Leadership for the 21st Century,” a joint conference of the United Nations Office at Geneva and the World Academy of Art & Science to develop catalytic strategies for addressing the complex nexus of global leadership challenges, was held in Geneva and online on December 15-16, 2020. The conference was the culmination of a one-year joint project to develop cross-sectoral catalytic strategies to address current global leadership challenges. It was held from the Palais des Nations, with over 800 participants from around 100 countries joining online. MSS was represented as a keynote speaker by **Garry Jacobs**.
- 11) The World Academy of Art and Science, in collaboration with more than 30 collaborating partners, organized an international econference titled “WAAS@60: A Planetary Moment” commemorating the 60th anniversary of WAAS on February 15-19, 2021. MSS was a core partner and provided administrative and research support. The time has come to join together to create the essential global leadership needed for the 21st century. The main theme of the conference was, the time has come for global leadership to generate Planetary Momentum. Janani Ramanathan, SS. Sreejith and **Garry Jacobs** made presentations representing the research findings of MSS.
- 12) Publications: The following articles were published by MSS Staff in *Cadmus Journal* during this period:

1. “Leadership for a New Paradigm: Planetary Moment and Momentum” by **Garry Jacobs**, Donato Kiniger-Passigli, Ivo Slaus, Alberto Zucconi and Stefan Brunnhuber in the May 2020 issue. [1]
2. “Catalytic Strategies for Socially Transformative Leadership: Leadership Principles, Strategies and Examples” by **Garry Jacobs**, Donato Kiniger Passigli, Hazel Henderson and Janani Ramanathan in the May 2020 issue. [2]
3. “Global Transformative Leadership in the 21st Century: A Science, Engineering, Technology Integrated and Strategic Perspective“ by Rodolfo Fiorini, Carlos Alvarez Pereira, **Garry Jacobs** et al. in the May 2020 issue [3]

13) Research Staff:

M. Chandrasekaran – Coordinator for employment
 Vasugi Balaji – Coordination with the UN and other stakeholders
 Shashini Kumar – Administrative Support, Website maintenance and video editing
 Hariny Narayan – Administrative Support
 Janani Ramanathan -- Identification of Catalytic strategies
 Ranjani Ravi – Identification of Catalytic strategies
 Vani Senthil – Coordination with Youth Networks and other stakeholders
 Avanthikaa Subramanian – Transcript work

3. FUTURE CAPITAL INITIATIVE

- 1) The Future Capital initiative is focused on restoring the right relationship between consciousness and capital, as creative force and constructive resource. The project was initiated in collaboration with the World Academy of Art and Science, United Nations Office for Partnerships and UNCTAD.
- 2) A principal objective of FCI is to support and accelerate existing transformation initiatives while also identifying and promoting new and emergent initiatives aimed at improving the quality and speed of implementation of the UN SDGs. **Garry Jacobs** represents MSS on the organising committee. The inaugural gathering of 50 founding members of the Future Capital Initiative was held at the United Nations in New York, September 12–13, 2019, in collaboration with WAAS, the UN Office for Partnerships, and the United Nations Conference on Trade and Development (UNCTAD).
- 3) A Roundtable organised by WAAS on “Future Capital: Financing Global Development” was held at The World Bank, Washington D.C. on September 16-17, 2019, in which MSS staff participated.
- 4) MSS staff participated in a roundtable discussion at the Inter-University Centre, Dubrovnik, Croatia on November 18-20, 2019 to explore the psychological and social foundations of money, the financial linkage between economic and political equality, and the utilization of money as an instrument for either concentration of power or the wellbeing of all.

- 5) The Nizami Ganjavi International Center organized a webinar series on vital global issues in partnership with Yunus Centre and the World Academy of Art and Science. In search of global scale solutions, catalytic initiatives and transformative strategies, NGIC and WAAS conducted a special virtual session on Employment on Aug 24, 2020. Participants recognised that Full Employment should be considered a fundamental human right. MSS Staff participated and presented at the event.
- 6) Publication: “Innovative Financial Engineering to Fund the SDGs--A WAAS Initiative“
was published by Stefan Brunnhuber and **Garry Jacobs** was published in the May 2020 issue of *Cadmus Journal* [4]

4. FUTURE OF EDUCATION IN THE 21ST CENTURY

- 1) MSS is a charter member and collaborator with World University Consortium on a research project to evolve a new model for higher education that more effectively prepares youth for participation in the highly competitive work environment and increasingly complex social environment of the 21st century. The research involves development of methods to shift the emphasis from rote memorization to understanding and independent thinking, from abstract theory to contextualized knowledge, from passive to active pedagogy, from fragmented disciplinary to transdisciplinary perspectives, from competitive to cooperative learning environment, from repetitive to creative educational activities.
- 2) The 4th International Conference on Future Education was organized in Belgrade, Serbia from November 11-13, 2019. It examined effective strategies and policies required to accelerate a paradigm change in education. **Garry Jacobs**, Janani Ramanathan and Vani Senthil presented at the conference.
- 3) The Society’s Primrose School has been widely recognized as one of the most advanced institutions for childhood education in Pondicherry and one of the pioneers in early childhood education in India. MSS staff have been conducting extensive research on the education system needed for the 21st century to meet the challenges the world today, with especial focus on evolving new methods of pedagogy. The current paradigm is more lecture-centric and teacher-oriented. MSS staff, through new pedagogical methods, have been exploring how the 21st century needs new ways of teaching in which the teacher is merely the facilitator and how education should become more student-centered.
- 4) Research Staff:
Vasugi Balaji – Early Childhood Education Research
Shashini Kumar – Administrative Support and Website maintenance
Janani Ramanathan – New pedagogical methods in Higher Education Research
Vani Senthil – Early Childhood Education Research

5. 60TH ANNIVERSARY OF WAAS AND WAAS-EINSTEIN MANIFESTO

- 1) The Russell-Einstein Manifesto (1955) warned of the existential threat posed by nuclear weapons to the citizens of the world. It did not lead to the eradication of nuclear weapons, but it succeeded in generating widespread awareness of the

catastrophic dangers of nuclear war, paving the way for the founding of Pugwash Conferences and World Academy of Art & Science, the birth and growth of the nuclear abolition movement, the first treaties banning atmospheric testing, the Nuclear Non-Proliferation Agreement, numerous arms control agreements, and eventually to the elimination of tens of thousands of nuclear warheads and measures to reduce the danger of accidental usage.

- 2) WAAS and the Nizami Ganjavi International Center coorganised a webinar on 13th July 2020 inviting all like-minded organizations to reflect on the relevance of the Manifesto to the world today and seize the opportunity to convert the looming global threats confronting humanity into a compelling force for collective action. MSS Staff participated in the session.
- 3) The World Academy of Art and Science, in collaboration with more than 30 collaborating partners, organized an international econference titled “WAAS@60: A Planetary Moment” commemorating the 60th anniversary of WAAS on February 15-19, 2021. MSS was a core partner and provided administrative and research support.
- 4) Research Staff:
Chitra Krishnamoorthy -- Research on founding of WAAS, charter members and the history of WAAS
Janani Ramanathan – Research on International Institutions and Scientific academies
Ranjani Ravi – Research on the WAAS-Einstein Manifesto and its relevance on founding of WAAS and the history of WAAS.

6. DEMOCRACY, PEACE AND GLOBAL GOVERNANCE

- 1) MSS continued its research project on the future of democracy and global governance in 2019-2020. A preliminary report on the Society’s research on political economy, neoliberalism and democracy was presented at an international conference at Kyung Hee University in Seoul, Korea on September 21, 2017 in which Irina Bokova, former Director General of UNESCO was also a speaker.
- 2) MSS also conducted research in preparation for an International Roundtable on Future of Democracy which it is co-organizing at Inter-University Centre, Dubrovnik on April 3-5, 2018 in collaboration with WAAS, WUC, Dag Hammarskjöld University College of International Relations & Diplomacy, Croatia; Person-Centered Approach Institute, Italy.
- 3) Commemorating the 30th anniversary of the end of the Cold War, the Institute for Advanced Studies in Levant Culture and Civilization (ISACCL), in partnership with the Romanian Foundation for Democracy and with the support of the Romanian Government and the Romanian Ministry of Foreign Affairs, organized the International Conference on “30 years since the Collapse of Communism in Eastern Europe: The Role of Cultural Diplomacy in Approaching Protracted Conflicts”, in Bucharest in April 2019. MSS Staff participated in the event.
- 4) On June 4-6, 2019 the Russian Academy of Sciences, the Russian Ministry of Science and Higher Education and Lomonosov Moscow State University in

collaboration with UNESCO conducted an international conference on “Topical Issues of global studies: Russia in the Globalizing World.” MSS Staff participated in the event.

- 5) Publications: “Redefining Multilateralism” by **Garry Jacobs**, Donato Kiniger Passigli and Alexander Likhotal was published in the November 2020 issue of Cadmus Journal. [5] “Quest for Peace & Social Mechanisms for Safeguarding it” by Ashok Natarajan was published in the July 2020 issue of Cadmus Journal [6].
- 6) Research Staff:
Ranjani Ravi – Analysis of the book “No enchanted palace: Ideological origins of the United Nations”

7. HUMAN SECURITY

- 1) WAAS is collaborating with the United Nations Trust Fund for Human Security UNTFHS, to conduct a survey of UN member states, UN agencies, parliamentarians, national academies, research organizations, NGOs and youth groups around the world to assess views on the UN concept of Human Security as the basis for promoting more effective policies and implementation programs to foster peace and achieve the Strategic Development Goals.
- 2) The United Nations Institute for Training and Research (UNITAR), the World Academy of Art & Science (WAAS) and Human Security Unit have started collaborating to develop a targeted advocacy campaign based on real-time data gathering to significantly increase public support for human security towards promoting its adoption and application by governments and a wide range of other institutions.
- 3) MSS Staff have been researching the need for regional buffer stocks to address the issue of Food Insecurity. The findings were discussed and presented at the NGIC-WAAS-Yunus Centre organised web conference on Strategies for Food Security on 26 August 2020 and later the GL21 Conference in December 2020.
- 4) In December 2020, the Institute for Advanced Studies in Levant Culture and Civilization organised a webinar on the topic “What will the world look like after the pandemic?” in which MSS staff presented.
- 5) Research Staff:
Vasugi Balaji—Coordination with UN and other stakeholders
Chitra Krishnamoorthy – Local and National buffer stock programmes
Shashini Kumar – Website maintenance and administrative support.
Ranjani Ravi – Regional buffer stock programmes; financing SDGs

8. GLOBAL REFERENDUM

- 1) Ten years ago MSS recognized the need for establishing a global virtual platform to foster emergence of a shared global social consciousness to serve as a practical means for giving voice to the views of “we the people” and to eventually serve as an instrument for conducting formal or informal global referendums and other forms of liquid democracy. This project has been exploring strategies, potential

partnerships, organizational structure, financing and other essential requirements for giving concrete shape to this idea. *Garry Jacobs* has been heading the project.

9. REGULATORY STANDARDS FOR MEDIA

- 1) The universal human right to reliable information can only be achieved through responsible journalism free from political agenda, commercial incentives and cultural biases. A global monitoring and ranking system prepared by impartial experts to evaluate the objectivity, neutrality and reliability of information from major news services could provide recognition to institutions with the highest standards and provide readers with valuable assistance in their selection of news sources – similar to the ranking of universities. MSS in collaboration with WAAS has been working on a project to explore possible models and means for promoting global standards and measures for news journalism and social media as essential for protecting human rights and promoting effective decision-making, mature democracies and social cohesion.
- 2) Research Staff:
Ranjani Ravi – Research on existing regulatory standards for Media

10. PSYCHOLOGICAL HISTORY OF THE WORLD

- 1) This major research project will trace the underlying movement of ideas, values, aspirations and social forces that propelled various movements and events in history based on the social evolutionary perspective developed by Sri Aurobindo. Events will be looked into with a telescopic view of the advance of human civilization and culture from its origins in the distant past to the emergence of city-states, regional kingdoms, empires, nations and the global community. The project is expected to provide insights into the progressive evolution of human consciousness expressing through different stages of transition from physicality to mentality.
- 2) Weekly web meetings are being held regularly to trace the evolution of the Indian Independence Movement to its social, cultural and psychological origins. *Garry Jacobs* has been heading the project. Hariny Narayan, Vidya Rangan, Ranjani Ravi and Vani Senthil are also part of the project.

11. ACCELERATING INDIA'S ECONOMIC DEVELOPMENT

- A. MSS has been collaborating with the Global Institute of Integral Management Studies (GIIMS), Kerala, and Ramesh Kumar, an entrepreneur, to develop a comprehensive plan to accelerate India's economic development. The project, termed "Double It," will first do a comprehensive research study of Indian companies that have exponentially increased their income and explore the ways and methods through which they have accomplished, which may later be published as a book.
- B. The Double It! Executive Program is designed to support the Prime Minister's objective of accelerating India's economic growth and double India's GDP as a complement and supplement to policy changes designed to stimulate investment, improve the business climate and encourage establishment of new enterprises.

- C. The Foundation Program of the project was held at Taj Vivanta in New Delhi on 18-19, February 2019. **Garry Jacobs** is Project Leader and Chief Consultant of the Project. Four other MSS Staff participated in the event.

12. BUSINESS MANAGEMENT

- 1) MSS staff have been researching on the process of entrepreneurship and business success to identify the social, psychological, technological and organization factors responsible for their success. MSS will continue collaborating with the Global Institute for Integral Management Studies, Kochi, Kerala to develop a new curriculum for teaching principles of business management. MSS staff will continue to conduct training programs for GIIMS faculty and for Sainath Technologies, an environmental protection firm.
- 2) MSS staff was invited to deliver a two week MBA level credit course on Organizational Theory at Caucasus University, Georgia in November-December 2018. This course examined the fundamental principles, vital processes and effective power of organization applicable to all fields of activity with emphasis on business and economy and all levels of life from the individual enterprise to the economy, society and global community. It drew on cases studies from business, history, biography and literature to explore the sources of the energy, efficiency, power, innovation and creativity that enable organizations to multiply results and self-multiply themselves. It was designed to help students from different backgrounds, disciplines and levels of experience understand the principles and process of growth, innovation and creativity that govern all human activities.
- 3) The World Academy of Art and Science, in collaboration with the Club of Rome, organised a two day roundtable on March 21-22, 2019 at the Inter University Center, Dubrovnik, Italy, on “Emerging New Civilization Initiative,” a meeting of concerned and committed individuals and organizations to share insights and explore pathways to a new civilization initiative that recognizes the systemic interconnectedness of people, nations, sectors, activities, challenges, forces and consequences presiding over global development and seeks solutions and processes that transcend the limitations of the current paradigm and giving shape to pathways toward a better future for humanity. MSS staff participated in the event.

13. MIND, THINKING & CREATIVITY

- 1) MSS is collaborating with WAAS and WUC to create a comprehensive outline on Mind. The research involves identifying different systems of thinking, the nature of the human Mind and its evolution, the limits to thinking and rationality etc. MSS staff will continue research on the nature and evolution of mind and their role in human and social evolution. A research team is working on designing a Massive Open Online Course (MOOC) on the theme based on the comprehensive outline.
- 2) Research Staff:
Janani Ramanathan – Content creation for the MOOC Course
Vani Senthil – Research on the comprehensive outline

14. SOCIAL EVOLUTION IN PRIDE & PREJUDICE

- 1) The Society continued its research on social evolution and human character in Jane Austen's *Pride & Prejudice*. Janani Ramanathan heads this project.

I. DEVELOPMENT THEORY

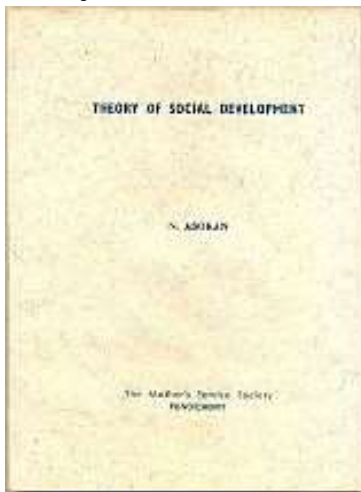
The financial crisis in East Asia, the threatened collapse of the Russian economy and the extreme difficulties faced in accelerating growth in East Germany after reunification are all expressions of the inadequacy of current development theory to generate effective strategies in the post-Cold War world. Since 1995, the Society has been engaged in a major research project to formulate a comprehensive framework for understanding the process of development as it has occurred in different part of the world over the past few centuries.

Principles and Process of Development

In the mid-1970s, MSS began work on the formulation of an original theory of social development based on principles derived from the writings of Sri Aurobindo. The Society staff have made an extensive study of the development process as it has unfolded in India, USA, Europe and other countries. Since then, MSS has identified 32 basic laws and more than 1000 corollary principles of social development. It has described the various stages of the development process and applied this theoretical framework to analyze contemporary and historical events in different parts of the world.

The Society continued research on the process of social development, examining the historical process of development as expressed in technology, patterns of social organization, human settlements, political and commercial institutions from the advent of agriculture up to the modern age. The Society is in the process of compiling and publishing 1000 principles of social development. The Society has established an on-going collaboration with the World Academy of Art & Science www.worldacademy.org

Theory of Social Development - Full Outline of the Theory in Brief by Ashok Natarajan



Great scientists dream of a final theory but grope about with facts that can only lead them away from any theory. No social scientist is able to dream of such a theory for the social sciences. Though it is a theory of social development as we present it, in truth this theory contains the whole basis of a final theory, not only for science, but for all knowledge. Science is knowledge.

Knowledge compartmentalized as knowledge of science and knowledge of economics is no knowledge. Knowledge knows no bounds. And this theory presents to the world that KNOWLEDGE.

The Society's original work on Development Theory was endorsed by the International Commission on Peace and Food in its report entitled *Uncommon Opportunities: Agenda for Peace and Equitable Development*. In that report it acknowledged the need for formulation of a comprehensive theory of social development applicable to all fields of social life in all countries.

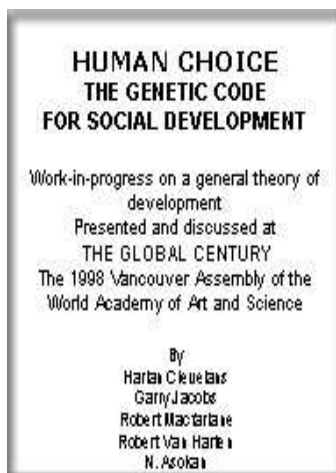
In July 1997, the research team conducted a meeting in Chennai with leading development experts including Sri C. Subramaniam, former union minister; Dr. Rajachelliah, Chairman of the Madras School of Economics; and Dr. M. Anantkrishnan, Vice Chancellor of Tamil Nadu State Council for Higher Education.

In January 1998, the Society presented a paper summarizing the theory at an international conference sponsored by the Western Economics Association of USA in Bangkok, Thailand.

In November 1998, the World Academy of Art & Science held a quinquennial General Assembly of its worldwide members in Vancouver, Canada. A special half day session chaired by WAAS President Harlan Cleveland was held at the assembly in which the Society presented an outline of the development theory and conducted an open discussion with more than fifty Fellows of the Academy. During the Assembly, MSS conducted three workshops on global economic development applying the development theory to examine the potentials for global development in the 21st Century.

In March 1999, MSS participated in a special meeting in Mexico organized and personally chaired by the Mexican Minister of Social Development, Mr. Esteban Moctezuma. At that meeting, MSS presented its framework for development theory and discussed various ways that it could be applied to accelerate development in Mexico.

In May 1999, the Society, WAAS and ICPD co-sponsored a three day seminar on Development Theory in Washington DC. Participants included delegates from Canada, Chile, Mexico, Netherlands and USA. Harlan Cleveland, the President of WAAS, chaired the seminar. MSS presented four papers outlining the principles and process of development.



In August 1999, the Society co-authored a paper on Development Theory with Harlan Cleveland. The paper was circulated to a range of international experts and served as the basic discussion paper for the conference in September 1999. In September 1999, a booklet entitled *Human Choice: The Genetic Code for Social Development*, co-authored by Harlan Cleveland and four staff members of the Society, was published by WAAS. In December 1999, the main article in this booklet was published by *Futures Research Quarterly* of UK.

Human Choice – The Genetic Code for Social Development, by Harlan Cleveland, Garry Jacobs, Robert Macfarlane, Robert van Harten and Ashok Natarajan

Social development is the product of the application of the powers of mind to organize the physical materials, social activities and mental ideas of humanity to achieve greater material, social, mental and spiritual experience. Whether we look backward or forward, we face the same puzzling questions: What is the essential nature of human development? By what process does it occur? What factors speed it up and slow it down? What conditions are essential or detrimental to it? Through what stages or phases does it pass? What are the sources of its problems and its failures? And, probably most importantly, what is the role of the individual human being in human development?

The approach outlined in this book gives central importance to the role of organization in development, organization as defined in the widest sense as the orderly arrangement of human activities to achieve greater productivity, efficiency, innovation and creativity.

In September 1999, MSS, WAAS, ICPD and the M.S. Swaminathan Research Foundation co-sponsored a four day international conference on Development Theory in Chennai. Harlan Cleveland and Dr. M. S. Swaminathan co-chaired the conference. Participants included the former Vice-President and new President of WAAS, Walter Anderson, as well as delegates from Belgium, Canada, Croatia, Mexico, Netherlands, Romania, and USA. The late Sri C. Subramaniam, former Union Minister, delivered the inaugural address. The Society presented several papers at the conference applying the development theory to India, business and growth of human personality.

In 2001, the Society began research for three books presenting the principles of development and illustrating application of the theory to explain the role of money as an organization in the development process and the development of the Internet as a social organization. At the same time, MSS broadened and intensified its research on development theory by examining the historical process of development as expressed in technology, patterns of social organization, human settlements, political and commercial institutions from the advent of agriculture up to the modern age.

During 2003, the Society reduced its theoretical approach to 500 essential principles of development. Research continued on applications of the theory to understand the origins and future of liberalism and democracy and examine the basis for political decision-making with regard to conflicts and leadership succession. In addition, work continued on examining the process by which money is created in society and the evolution of the Internet as a social organization.

Democracy & Development

The Society is in the midst of a major research project to determine the social origins of democracy in Western society and document the complex interrelationship between political, economic and social factors. The study focuses on the complex interrelationships between agricultural development, feudalism, religious reformation, industrialization, education and the rise of modern democratic institutions. In recognition of the importance of this project, the World Academy of Art and Science in USA awarded a Society researcher the position of Junior Fellow. This historical study is documenting many of the development principles identified in the Society's theoretical study of the development process, especially the essential preconditions for development, the role of surplus energy and social organizations in the development process, and the growing

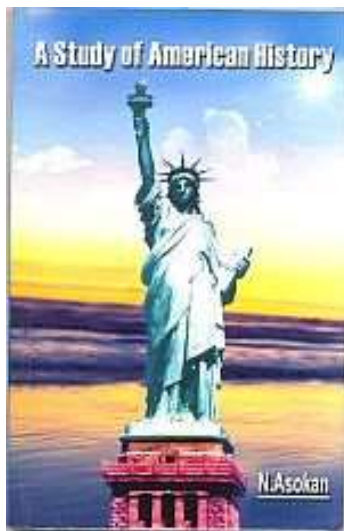
recognition of the importance of human beings. The central thesis of the study is that the movement toward democracy has been driven by the rising social value attributed to human beings. It confirms a hierarchy of development needs, with physical security from external threats as the essential precondition for the breakdown of feudal social structures and the liberation of economic initiative in society. It further confirms that in the past, political freedom has resulted from the transfer of power from a landed aristocracy to a mercantile class.

In 2004-05, the focus of research traced the origins and rise of democratic principles from ancient Greece and medieval Europe to modern America and examined the impact of democracy on the emergence of individualism in USA and its role in raising America to a position of world leadership. In September 2005, MSS published a study applying development theory to understanding the phenomenal rise of USA to world leadership.

Individuality

MSS continued its major research project on the role of Individuality in Human Accomplishment and Social Development. MSS organised a two-hour e-seminar on Individuality in collaboration with the World Academy on February 17th, 2012. Garry Jacobs presented on the theme ‘Individuality and Social Development’ and Janani Harish presented her paper “Individuality and Social Evolution in Literature”. Ashok Natarajan contributed background papers for the conference on the themes of ‘the Evolution of Individuality’ and ‘the role of Individuality in Social Development’. A special session on Individuality was conducted during the major international conference on “Humanities and the contemporary world” in collaboration with the World Academy of Art & Science and the Montenegrin Academy of Sciences and Arts at Podgorica, Montenegro in June 2012. MSS Staff Garry Jacobs, Ashok Natarajan and Janani Harish attended the conference and presented papers on the subject.

A Study of American History



A Study of American History by Ashok Natarajan is a theoretical exposition of American History in which he has endeavoured to express certain principles through various historical events of the USA. It is done in the hope that the abstract is thus made concrete as the event speaks for itself.

The USA has demonstrated on a national scale that the slum dwellers move into middle class in about a year and ALL the millionaires are invariably men who made it in the first generation starting with zero. This clearly illustrates the process of the finite becoming the infinite.

Not only does the USA demonstrate the result but the process also is there laid bare for anyone to see. Hence, we say the USA is the evolutionary vanguard. This book is a preliminary attempt to explain the Theory of Social Evolution as it unfolds in the history of the USA.

New Paradigm in Human Development

In 2013 the Society joined in collaboration World Academy of Art & Science on a project to examine the root causes of the multiple challenges facing humanity today in order to formulate an integrated perspective, a comprehensive strategy and detailed policy framework attuned to the realities, needs and emerging opportunities of the 21st century. The project seeks to explore the linkages and interdependencies between issues related to economy, employment, ecology, education, global governance, rule of law, international security, social stability and human welfare. The project was launched at an international conference on “Impact of Science & Technology on Society & Economy” in Trieste, Italy in March 2013, followed by a major international conference on “Opportunities and Challenges for the 21st Century: Search for New Paradigm” held at the United Nations in Geneva on June 3, 2013 and a seminar at the Library of Alexandria on June 5 & 6, 2013, a roundtable in Bucharest in July, two workshops in Washington DC and Ottawa in September 2013, an international conference on “Transition to a New Society” held in Montenegro in March 2014, a preparatory meeting on a “New Paradigm for Human Development” of 30 leaders of 10 international organizations in Baku, Azerbaijan on April 30, 2014, and an international conference in Almaty, Kazakhstan on November 5-7, 2014. MSS staff conducted research and made presentations in all these conferences. A series of articles authored/co-authored by MSS staff were also published in *Cadmus Journal* entitled “In Search of a New Paradigm for Global Development” in May 2013; “A Revolution and a New Paradigm in Education” and “New Paradigm in Human Development: A Progress Report” in October 2013; and “New Paradigm: The Necessity and the Opportunity”, “The Coming Revolution in Education” and “Towards a New Paradigm in Education” in May 2014.

Individuality, Accomplishment and Social Evolution

MSS is engaged in a multi-year research project on the nature and role of Individuality. In recent years, Individuality has emerged as a pre-eminent social value and driving force for change. Human rights, democratic participation, universal education, economic opportunity, social tolerance, freedom of thought and expression, individual innovation and inventiveness are the dominant levers for human progress. The leader, innovator, entrepreneur and the pioneer are social expressions of this phenomenon. The original thinker, inventor and creative artist are mental expressions. Current trends indicate that individuality will play an even greater role in the future. MSS organised an e-seminar on Individuality in collaboration with the World Academy in Feb 2012. A special session on Individuality was conducted in June 2012 at the major international conference on “Humanities and the contemporary world” in collaboration with WAAS at Podgorica. In August 2014, MSS collaborated with WAAS to conduct a post-graduate level certificate course on “Individuality and Accomplishment” at the Inter-University Centre, Dubrovnik which was also broadcast live over the web. A course on leadership is also under development.

Post Graduate Course on Individuality & Accomplishment

MSS continued its major research project on the role of Individuality in Human Accomplishment and Social Development. Research focused on examples of outstanding individuals in history, literature and biography. It also included preparation of lectures for a post-graduate course on individuality and accomplishment for presentation in

Europe in August 2014. The course, organized by the World Academy of Art and Science and World University Consortium and conducted at IUC Dubrovnik from 25 August 2014-30 August 2014, included two MSS staff as lecturers. It explored the role of the individual in the development of society, elucidated the characteristics of true individuals, the source of their power for accomplishment and the process by which they act as catalysts of social. The course also attracted online participation from students across the globe. A paper by Ashok Natarajan titled “Conscious Individual” was published in the October 2014 issue of *Cadmus Journal*. WAAS and WUC conducted a post-graduate level certificate level course on “Future Education” from September 21-23, 2015 at the InterUniversity Center, Dubrovnik, Croatia.

Post Graduate Course on Transdisciplinary Social Science

MSS continued its major research project on developing transdisciplinary science of society. MSS staff presented lectures for a post-graduate course on transdisciplinary social science at IUC in Dubrovnik from 1 September 2014-6 September 2014. The course, organized by the World Academy of Art and Science and World University Consortium, was intended to examine the prospects and requirements for evolving a trans-disciplinary science of society. Papers by Janani Harish and Garry Jacobs et al. titled “Society and Social Power” and “Unification in the Social Sciences: Search for a Science of Society” were published in *Cadmus Journal* in the October 2014 issue.

Social Anthropology

In 2015-2016. MSS collaborated on a new project of the Academy that involved studying human societies, their culture, the social structure and the theory to maximize social and individual potential. MSS Research Fellow Marta Neskovic’s paper “Knowing Beyond the Structure: Maximizing Social Power through a Synergistic, Values-based Approach on Diversity” has been accepted for publication in the May 2016 issue of *Cadmus Journal*

Social Power

MSS has been collaborating with WAAS-WUC to explore the sources, expressions, determinants and consequences of the creation, distribution and exercise of social power in politics, economy, society and individual psychology. The project will examine the different forms in which power develops and acts, including military, government and political parties, law, commerce, communication, transportation, media, religion, technology, science, education and other social expressions. It will also examine the process by which social potential develops, gets organized and channeled for social progress, as well as the process by which power is usurped or diverted for the benefits of smaller elites. A 3 day PG level course was held on Social Power at IUC Dubrovnik from October 31-November 2, 2016 in which MSS staff presented and provided admin support.

Social Power and The Role of The Individual In Social Evolution

MSS continued its major research project on social power and the role of Individuality in Human Accomplishment and Social Development. The research consisted of three main dimensions. First, it examined the different forms in which power develops and acts, including military, government and political parties, law, commerce, communication, transportation, media, religion, technology, science, education and other social expressions. Second, it examined the process by which social potential develops, gets organized and channelled for social progress, as well as the process by which power is usurped or diverted for the benefits of smaller elites. Third, it explored the sources, expressions, determinants and consequences of the creation, distribution and exercise of social power in its various expressions in politics, economy, society and culture and its consequences for the evolution of society as a whole. The working hypothesis of this research is that the greater the empowerment of the individual in society, the greater is the overall effective power of the society to accomplish its social objectives.

Publications: The findings of this research were incorporated in two research papers published during the year: “Quest for a New Paradigm in Economics”, (Cadmus Vol 3.2, May 2017) and “The Political Economy of Neoliberalism and Illiberal Democracy” (Cadmus Vol 3.3 Oct 2017).

Psychological History of The World

This major research project will trace the underlying movement of ideas, values, aspirations and social forces that propelled various movements and events in history based on the social evolutionary perspective developed by Sri Aurobindo. Events will be looked into with a telescopic view of the advance of human civilization and culture from its origins in the distant past to the emergence of city-states, regional kingdoms, empires, nations and the global community. The project is expected to provide insights into the progressive evolution of human consciousness expressing through different stages of transition from physicality to mentality.

Weekly web meetings are being held regularly to trace the evolution of the Indian Independence Movement to its social, cultural and psychological origins.

II. EMPLOYMENT

For the past four decades MSS has been conducting original research and designing implementation projects to accelerate employment generation in different countries and regions of the world. The following is a summary of some of the major employment studies conducted.

Strategy for Full Employment in India

In 1991, MSS conducted a study of the commercial potentials of Indian agriculture in collaboration with the International Commission on Peace and Food (ICPF) in order to evolve a strategy to generate full employment in India during the succeeding ten years. The study examined the technological and commercial potentials of cash crops and animal husbandry and identified missing organizational linkages needed to full exploit

India's capacities. The study concluded that 100 million new jobs could be created within a ten year period by accelerated development of commercial agriculture, agro-industry and agro-exports.

In December 1991 and early 1992, the strategy was presented to the Indian Prime Minister, the Planning Commission of the Government of India, and Secretaries of 20 departments of the Government. It was approved and incorporated in the financial budget for 1992. A special organization was established by GOI to implement the programme and district level studies were initiated by the Government in 12 districts around the country.

In 1994, Society staff worked with Agriculture Finance Corporation to apply the strategy in Pune District, Maharashtra. The study focused on the potentials for stimulating development of commercial agriculture in areas such as flower cultivation, vegetable and fruit production and processing, inland fish culture, mushrooms, etc. The study concluded that this strategy could generate additional employment of 750,000 in the district. In 1996, the Society organized a national conference on India's economic potentials in Chennai to discuss strategies to stimulate employment generation and economic growth. In 1997, the Society applied the Prosperity 2000 strategy to identify opportunities for stimulating employment generation in the Union Territory of Pondicherry. This study identified potentials for increasing total job creation in the state by 15%.

In the national parliamentary elections conducted in the Spring of 2004, the issue of employment was raised to the top of the agenda and the winning coalition led by the Indian National Congress (I) Party was elected on a platform the included a commitment to introduce legislation to guarantee a minimum level of employment to all job seekers in the country. It is noteworthy that the goal of creating 10 million jobs a year was revived at this time. In the summer of 2004, MSS conducted a review of the original strategy and found that a number of the potentials it had identified had been successfully exploited and employment growth had outstripped growth of the labor market, leading to a tighter labor market and rapid wage escalation in many parts of the country.

Global Employment Prospects

In 1992-94, MSS chaired a task force of the International Commission on Peace & Food to examine the prospects and strategies for accelerating employment generation in both industrialized and developing countries and at the global level. Our findings formed the basis for the chapter on employment in *Uncommon Opportunities: Agenda for Peace & Equitable Development*, ICPF's report to the United Nations which was submitted to the Secretary General and all members of the UN. The report was heralded as an original contribution to meeting the global employment challenge.

Employment in the Middle East

In 1995, MSS collaborated with the International Commission on Peace & Food and the Noor al Hussein Foundation of Jordan to organize an international symposium on employment strategies in the countries of the Middle East.

Employment in Europe

In 1997, MSS prepared a strategy for eliminating the high level of unemployment in Germany. In 2007, MSS participated in a workshop conducted by the South East Asian Division of the World Academy of Art & Science in Zagreb, Croatia on strategies to promote employment generation in SEE countries. Subsequently, MSS prepared a paper on employment strategies for Europe.

Development Potentials for Okinawa, Japan

In 1997, MSS began a study of development strategies for the island community of Okinawa, Japan. Society researchers participated in a joint mission to Okinawa to gather information and present recommendations to officials of the prefecture and municipal governments and to leading public individuals on the island. The society's recommendations focused on the potentials for generating employment in multimedia computer-based software and in high-tech agriculture.

World Youth Summit on Employment

At the request of the World Youth Summit, in 2002 MSS prepared a background discussion paper on strategies to generate sufficient jobs for the world's youth which was circulated to 10,000 organizations and individuals around the world for review and commentary. The responses to this paper were used by the summit secretariat to prepare the documentation for the summit.

Employment in a Global Society

In 2005, MSS conducted research on the potential for generating full employment in the emerging global economy and co-chaired a session at the General Assembly of the World Academy of Art & Science in Zagreb, Croatia on this subject. The study concluded that the rate of employment growth has exceeded the rate of population growth over the last decade. Demographic trends indicate an increasing shortage of labor in industrialized countries and a worldwide shortage of skilled workers over the last few decades. While technological development and globalization do result in elimination of some jobs, overall, their impact is to create far more jobs than they destroy. The quadrupling of employment in the USA over the past 100 years, the world's most open and technologically advanced economy supports this view. MSS is now working on the outlines of a global employment model incorporating demographic, economic, technological, educational, social, political and commercial factors.

Internet-Based Employment Generation

In 2007-08, the Society launched a pilot initiative to generate internet-based self-employment opportunities. MSS researchers identified hundreds of self-employment opportunities for publication on www.seekluck.com. More than 50,000 Indian youth have registered with the site in order to benefit from this research project. In addition, the Society sponsored several new websites by internet-based entrepreneurs. More than 100 articles on the subject were published in New Indian Express.

Conference on Global Employment Challenge

In 2009-10, MSS collaborated with the World Academy of Art & Science to conduct a six month e-conference on the Global Employment Challenge in which more than fifty experts participated.

Global Prospects for Full Employment

In 2011 MSS co-authored a research paper on Global Prospects for Full Employment summarizing the Society's approach to achieving full employment in developing and industrially advanced nations. The paper was also published as a discussion paper of the Club of Rome and in abridged form by the Geneva Association. MSS also made a presentation at an international conference in Bern on Employment organized by Club of Rome in October 2011.

United Nations in Geneva

In 2013 MSS research on the global employment challenge focused on formulation of suitable strategies to reduce the rising levels of unemployment at the global level. Emphasis was placed on understanding the impact of international factors on national employment markets. MSS presented papers on this subject for an international conference at the United Nations in Geneva on June 3, 2013 and at a conference of the Club of Rome in Ottawa on September 19-20, 2013.

Employment in Bosnia

In 2014 MSS co-sponsored a conference in Sarajevo in collaboration with the Government of Bosnia Herzegovina and the World Academy of Art & Science on strategies for full employment.

Global Employment Challenge

MSS continued its research on the global employment challenge in 2014-15 focusing on formulation of suitable strategies to reduce the rising levels of unemployment. MSS conducted research on strategies to address the very high levels of unemployment in Bosnia & Herzegovina and presented its findings at an international conference in Sarajevo on July 1, 2014.

In 2015-16, MSS staff met with the Director of Employment Research at International Labor Organization Geneva and discussed areas for collaboration on research to address global employment challenges. MSS also conducted research and participated in the conference on the impact of technological advances on employment conducted at Podgorica, Montenegro in May 2016. In 2016-17, MSS began a study of the skills gap confronting business in major economies and the educational gap between what educational institutions are preparing students for and what employers say they actually are looking for in new employees. Findings of this study will be presented at international conferences and published in 2017-18

New Paradigm in Human Development

Based on the enthusiastic response to a research paper co-authored by MSS staff and published in October 2012 issue of *Cadmus Journal*, the Society joined in collaboration with the World Academy on a project to examine the root causes of the multiple challenges facing humanity today in order to formulate an integrated perspective, a comprehensive strategy and detailed policy framework attuned to the realities, needs and emerging opportunities of the 21st century. The project seeks to explore the linkages and interdependencies between issues related to economy, employment, ecology, education, global governance, rule of law, international security, social stability and human welfare. The project was launched at an international conference on “Impact of Science & Technology on Society & Economy” in Trieste, Italy in March 2013, followed by a major international conference on “Opportunities and Challenges for the 21st Century: Search for New Paradigm” held at the United Nations in Geneva on June 3, 2013 and a seminar at the Library of Alexandria on June 5 & 6, 2013, a roundtable in Bucharest in July, two workshops in Washington DC and Ottawa in September 2013, an international conference on “Transition to a New Society” held in Montenegro in March 2014 and a preparatory meeting on a “New Paradigm for Human Development” of 30 leaders of 10 international organizations in Baku, Azerbaijan on April 30, 2014. MSS staff conducted research and made presentations in all these conferences. A series of articles authored/co-authored by MSS staff were also published in *Cadmus Journal* entitled “In Search of a New Paradigm for Global Development” in May 2013; “A Revolution and a New Paradigm in Education” and “New Paradigm in Human Development: A Progress Report” in October 2013; and “New Paradigm: The Necessity and the Opportunity”, “The Coming Revolution in Education” and “Towards a New Paradigm in Education” in May 2014.

Governance & Global Rule of Law

In 2013 MSS conducted research in collaboration with Professor Winston Nagan, Chair of the Board of Trustees of WAAS and Director, Institute for Human Rights, Peace and Development at the University of Florida. The research focused on the problems of governing an increasingly globalized world community in which legal and political power still reside largely with nation states that claim principles of national sovereignty, even over actions which impact on the entire world community. An article on “The Evolution of Sovereignty” appeared in *Eruditio Journal* in September 2013. Discussions on the relationship between social process, political process and constitutive process were conducted at several international conferences related to the New Paradigm Project.

International Security & Abolition of Nuclear Weapons

In 2013 MSS conducted its collaboration with the World Academy of Art & Science to evolve new approaches for international security and nuclear disarmament. Staff participated in an international conference on “Actions to Enhance Global Security” organized by WAAS, the European Leadership Network and Dag Hammarskjold University College of Diplomacy at Zagreb on May 3-4, 2013 and at the NATO Conference on “IX Annual NATO Conference on WMD Arms Control, Disarmament and Non-Proliferation” in Split, Croatia, on May 6-7, 2013. Our presentation focused on the need to evolve a truly global system of cooperative security that would include Russia and Western countries within a common system. An article “Actions to Enhance Global Security” co-authored by MSS, WAAS and ELN was published in Fall 2013 issue of *Cadmus*. MSS also conducted research on cultural diplomacy and the history of the Arabs and the Jews in the Middle East and presented a paper “Cultural Diplomacy: Strategies for Psychological Evolution of the Levant” at the international conference on “Levant, Cradle of the Cultural Diplomacy: Rediscovering the Mediterranean”, on May 23-25, 2013, in Bucharest, Romania.

Role of Values in Human Development

In 2013 MSS participated in an international conference organized by the Club of Rome on the role of values in human development and co-authored an article with Winston Nagan which was published in *Eruditio Journal*.

European Integration and End of the Cold War

In 2012 MSS completed a study of the role of European Integration in leading to an end of the Cold War and published an article in *Eruditio Journal*.

Peace & Global Development

In November 2004 WAAS and MSS were co-sponsors of an international symposium on peace and development convened in New Delhi to examine the relevance in today's world of recommendations contained in the report of the International Commission on Peace & Food, *Uncommon Opportunities: Agenda for Peace & Equitable Development*, which was submitted to the UN in 1994. The conference was inaugurated by Dr. A.P.J. Abdul Kalam, President of India. The keynote address was delivered by Mr. Natwar Singh, Minister of External Affairs. The meeting was convened in collaboration with the International Centre for Peace & Development (USA), the M.S. Swaminathan Research Foundation (India), the National Farmers Commission (Government of India), and the UN World Food Program. The conference explored the inextricable mutual interdependence between peace, social stability, democracy, employment and food security.

In September 2005, WAAS and MSS convened a workshop on nuclear disarmament in Washington DC. Robert McNamara, former President of World Bank and US Defence Secretary, participated together with Fellows of WAAS and three staff members of MSS.

In November 2005, MSS co-sponsored the World Academy's General Assembly in Zagreb, Croatia. MSS co-chaired and presented papers at a plenary session on Global

Employment in a Knowledge Society, and in two workshops on Money and Rising Expectations.

In July 2006, MSS presented a paper at a WAAS workshop on Elimination of Nuclear Weapons at the annual conference of World Future Society in Toronto.

In October 2006, MSS sponsored a WAAS workshop on Nuclear Disarmament in New York City in collaboration with the Global Security Institute and Middle Powers Initiative.

In April 2007, MSS participated in a workshop conducted by the South East Asian Division of the World Academy of Art & Science in Zagreb, Croatia on strategies to promote employment generation in SEE countries.

Indian Prime Minister, Manmohan Singh, inaugurated an international conference in New Delhi on June 9-10, 2008 to mark the 20th anniversary of Prime Minister Rajiv Gandhi's historic speech to the United Nations calling for complete nuclear disarmament. The conference was organized by WAAS Fellow Jasjit Singh, head of the Centre for Strategic and International Studies, and sponsored by the Ministry of External Affairs of the Government of India. Other keynote speakers included India's President, Pranab Mukherjee; the Vice President of India, Mohamad Hamid Ansari; Minister Mani Shankar Iyer; Canadian Senator Douglas Roche; Australian Ambassador Richard Butler; senior Indian diplomats and military officers; as well as Fellows Jonathan Granoff of Global Security Institute (USA) and Garry Jacobs of the Society.

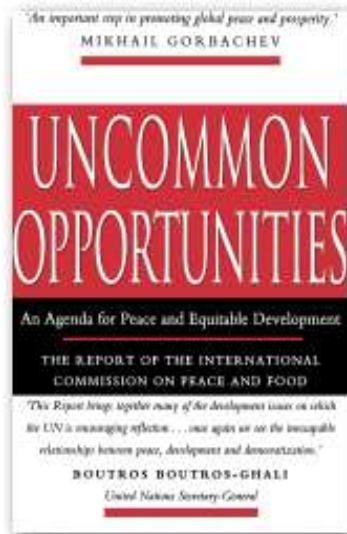
On February 7-8, 2011 the Center for Air Power Strategy, New Delhi and WAAS conducted a two day international symposium in New Delhi on strategies to abolish nuclear weapons. The meeting included delegates from USA, Europe and India. Garry Jacobs presented a paper during the conference representing the Society.

WAAS organised an international conference along with The European Leadership Network and Inter-University Center at Dubrovnik, Croatia on September 14-16, 2012, which was sponsored by The North Atlantic Treaty Organisation. Garry Jacobs participated in the conference as a speaker, representing the Society.

Development & Environment—Myths & Realities

The relationship between economic development and environmental problems is extremely complex. In 2008, MSS undertook a study of historical trends to determine the likely impact of environmental constraints on the future of global development. MSS organized and chaired a session on this topic at the General Assembly of the World Academy of Art & Science in Hyderabad in October 2008.

International Commission on Peace & Food



In October 1988, the Society conducted a small conference of distinguished persons in Washington D.C. to discuss a proposal to establish a new international initiative to promote disarmament and defense, food production and employment generation. As a result of the recommendations of the participants, the International Commission on Peace and Food (ICPF) was established in early 1989 headed by Dr. M. S. Swaminathan, internationally renowned scientist, former member of the Indian Union Planning Commission, and first recipient of the World Food Prize, with Garry Jacobs, Vice President of MSS, as Member Secretary, and Robert Macfarlane, Treasurer of MSS, as Treasurer. The Commission consisted of 30 international experts on food, development and peace issues from 20 and included three staff members

of the Society.

Over the succeeding years, ICPF conducted seven international conferences and set up five working groups to study issues related to The Commission focused on evolving solutions to pressing global issues related to international security, global governance, employment, food security, transition in Eastern Europe and human development. In addition, it undertook country specific research projects in Russia and India.

Membership

Commission members included former US First Lady Rosalynn Carter and Queen Noor of Jordan; James Ingram, Director General of UN World Food Program; Dr. Dragoslav Avramovic, former Director of the Brandt Commission; Dr. Abdus Salam, Nobel Laureate in Physics and President of the Third World Academy of Sciences; Umberto Colombo, Minister of University and Scientific Technical Research, Government of Italy and former Chairman of Italian Atomic Energy Commission; Dr. Alexander Niconov, President of the All-Union Academy of Agricultural Sciences and Dr. Victor Nazarenko, Director of the Russian Institute for Information and Techno-economic studies of the Agro-Industrial Complex of USSR; Dr. Martin Lees, President of the UN University for Peace in Costa Rica; Dr. Lal Jayawardena, Director of the UN World Institute of Development Economic Research in Helsinki; Brian Walker, Director of Earthwatch Europe; John Mellor, Director of the International Food Policy Research Institute in Washington D.C.; Eugene Whelan; former Canadian Minister of Agriculture; Uma Lele, World Bank economist; Mary King, former Asst. Director of the U.S. Peace Corps; Jasjit Singh, Director of the Indian Institute of Defense Studies and Analysis in Delhi; Erling Dessau, Resident Representative of UNDP in India; Edward Williams, Winrock International, USA; Dr. Manfred Kulesa, former Managing Director of German Development Service; Dr. A. T. Ariyaratne, President of Sarvodaya Shramaana in Sri Lanka; Garry Jacobs, Robert Macfarlane and Robert van Harten of the Mother's Service Society; and others.

Conferences

Between 1989 and 1994, the Commission conducted five plenary meetings of its members, which the Society helped to organize and support financially. The first was conducted at the International Centre for Theoretical Physics in Trieste, Italy in October 1989 in collaboration with the Third World Academy of Sciences. At that meeting, the Commission approved its terms of reference and plan of work for the successive five years.

An interim meeting of ten Commission members was organized and sponsored by the Society in Washington DC on April 28, 1990 to review progress since the Trieste meeting, to identify countries for ICPF's research work, and to discuss the outlines of a Global Compact for Ecological Security.

The second full meeting of the Commission was hosted by the All-Union Academy of Agricultural Sciences in Moscow in November 1990. In addition to Commission members, 25 Soviet experts on agriculture, economics and military conversion were invited to present papers and discuss the impact of economic changes on the USSR. This meeting focused primarily on strategies for economic transition in Eastern Europe, agricultural development and establishment of market mechanisms, efforts to reduce military expenditure and the proposal to establish a World Army.

The Society sponsored the third plenary meeting of the International Commission on Peace and Food in Madras from October 2-4, 1992, for which approval was granted by the Department of Economic Affairs of the Ministry of Finance. Fifteen delegates from around the world joined with ten distinguished Indian delegates to discuss critical issues related to development, environment and defense. The Society's study of employment potentials in India was presented at the meeting and endorsed by the participants. The terms of reference were formulated for second phase of the study. Participants also framed a proposal for presentation at the UNCED Conference in Rio de Janeiro calling for establishment of employment guarantee programs emphasizing environmental projects such as afforestation, wasteland de-velopment, biomass utilization and watershed management. The Governor of Tamil Nadu hosted a special dinner for the participants.

The fourth plenary meeting of the Commission was hosted by the Norwegian Agricultural Research Council in Oslo in September 1992. Here attention focused on issues related to the first Gulf War and the on-going war in the former Yugoslavia.

The fifth meeting is being hosted by the Carter Presidential Center in Atlanta, Georgia, USA during October 1993. At this meeting, Society staff presented the findings of the working group on Employment and strategies to shift from competitive to cooperative global security paradigm.

Strategy for Full Employment in India

Under the auspices of ICPF, The Society undertook a major study in 1991 to assess the long term employment needs of the country and to identify possible strategies to meet those needs, focusing on the potentials for increasing productivity and employment in agriculture and agro-industry. The research team, headed by Dr. G. Rangaswami, conducted in-depth studies of technical and commercial potential in 8 sectors of

agriculture including horticulture, sugarcane, cotton, aquaculture, sericulture, oil seeds, food grains, irrigation and wasteland development for plantation forestry and fodder production as well as examining opportunities for growth of dairy, poultry and plantations crops. These studies assessed the scope for upgrading technology to increase productivity, expanding production, improving quality, domestic and export market potential, economics of production, links with processing, and organizational mechanisms to encourage growth in these sectors. The sectoral studies were then amalgamated to assess the overall potential impact of these potentials on employment in agriculture, agro-industry and downstream businesses, the estimated investments required by government, banks and private sector, the profits and jobs that would be generated by large scale implementation.

The findings of the study indicate that it is possible to create 100 million new jobs in India within a ten year period through intensive development of commercial agriculture and agro-industries. The study projects creation of 45 million direct jobs in agriculture, 12-15 million jobs in direct downstream agro-industries and another 40 million in other rural and urban enterprises. The average cost of new jobs in agriculture and agro-industry works out to Rs. 20,000, compared with Rs. 2,50,000 in the private sector. The strategy could generate an additional Rs. 200,000 crores of GDP, equivalent to a 37% increase at constant prices. The relatively low capital outlay would make it possible to finance the direct costs of the program within the present budgetary limits of the five year plans.

The findings of the study were presented for review and discussion at ICPF's plenary meeting in Madras in October 1991. A seminar was organised in collaboration with the Institute of Rural Management at Anand during November 1991 at which 25 leading politicians, economists, planners and heads of voluntary agencies reviewed and endorsed the strategy and proposed appropriate mechanisms for its adoption and implementation by Government.

The strategy and recommendations were presented to senior officials in the Government of India, including the Prime Minister and his Additional Secretary, the Deputy Chairman and three members of the Planning Commission, the Minister and Secretary of Agriculture. In February 1992, the Planning Commission officially adopted the strategy and it was incorporated in the Eighth Five Year Plan document and the Finance Minister's 1992 Budget. As its first practical step, the Government decided to establish the Small Farmers Agri-Business Consortium to implement the strategy in 12 model districts around the country. Implementation studies have been launched in Pune District of Maharashtra, Dharmapuri District of Tamil Nadu and other places.

Privatization of Agriculture in USSR

In December 1990, a research team visited Moscow and an agricultural region in Northwestern Russia on a project organized by the All-Union Academy of Agricultural Sciences of USSR to develop a strategy to promote the development of private family farming in the country. The study included visits to private and state owned farms in Pytalova District, Pskov Region, as well as discussions with economists and agricultural specialists in Moscow at the Academy of Agricultural Sciences, The Agrarian Institute, and the Ministry of Food Procurement. Pytalova District was the first in Russia to introduce private farming. At the time of the study there were 147 private family farms in the district, but there was no social or economic infrastructure to support their development and activities. The objective of the project was to identify effective

strategies for promoting the development of private farms in Russia. The study team concluded that India's experience in Green Revolution and White Revolution was highly relevant to Russia today.

Indian Food Aid for Russia

At a critical juncture when Russia was suffering from an acute shortage of wheat, the Society submitted a proposal to the Government of India to sanction food aid to Russia and the Government of India offered one million tons of wheat for immediate delivery. An article entitled "Marshall Plan for Russia" was published in The Hindu in December 1990.

Indo-Soviet Dairy Collaboration

In March 1991 The Society sponsored the visit of a Soviet research team to examine India's achievements in dairy development and explore potentials for collaboration between India and USSR on development of a private dairy industry in USSR. The Soviet team was headed by Dr. Rudolph Praust, Head of the Pytalova Rural Observatory of the Agrarian Institute. The team had discussions with Dr. V. Kurien, the Chairman of the National Dairy Development Board, officials in the Ministry of Agriculture and ICAR, and a private dairy businessman in Delhi. They visited the Anand Dairy in Gujarat, the Bharat Agro-Industries Foundation in Pune and NDDDB's fruit and vegetable project in Delhi. Following this visit, a delegation of private Indian businessmen visited Russia to continue discussions. Follow-up discussions were held in Moscow in 1992.

Rural Development in Russia--Study of Borovsk District

Three research staff of the Society participated in a study mission to Russia organized by the International Commission on Peace and Food in collaboration with the Russian Institute for Information and Technical-Economic Analysis of the Agro-industrial Complex. The purpose of the mission was to examine conditions at the district level in an agro-climatically representative district of Northwestern Russia in order to identify effective strategies for stimulating agricultural and rural development, drawing on the team's experiences in developing countries like India. The mission team met with senior officials in the Russian Ministry of Agriculture and several economic research institutes, as well as district officials, bankers, state and collective farm managers, private family farmers and managers of industrial enterprises. The team found that despite the macro level efforts of the Russian government to stimulate development through privatization and liberalisation, conditions at the local level were severely lacking in the institutional infrastructure required for rapid development--extension services, agro-supply services, rural banks, local processing and storage facilities, marketing organisations, and rural industries.

Transition Economics

The recent effort of the Government of India to liberalise and deregulate the Indian economy and the more radical steps being taken by countries of the former Soviet Union to introduce free market economies raise significant questions on the effectiveness of various transition strategies and the underlying linkage between economic reform and the wider field of social change. As a first step in a larger program to examine these issues, the Society prepared a paper identifying some of the fundamental principles governing economic transitions. The paper was presented at the plenary meeting of the International Commission on Peace and Food in Oslo, Norway in September 1992.

Articles were published in Moscow News on "Lessons of the Economic Transition in Russia" and "Currency and Price Reform in Russia." A working group including three members of the Society was formed to continue research on strategies to accelerate the economic transition in Russia.

Gorbachev Foundation Conference on Economic Transition in Russia

A conference on the Transition in Russia was organized in collaboration with the Gorbachev Foundation and the Agrarian Institute of Moscow in January 1993. A working group including three members of the Society's research staff completed a draft report in June 1993 on strategies to accelerate the economic transition in Russia. Former Soviet President Mikhail Gorbachev chaired the conference.

International Center for Peace & Development

ICPF was officially wound up in early 1995 and succeeded by the International Center for Peace & Development, based in Napa, California with Harlan Cleveland as Chairman, Garry Jacobs as Executive Director, and Robert Macfarlane is Treasurer. The objective of ICPD is to carry on the work begun by ICPF.

Uncommon Opportunities: Agenda for Peace and Equitable Development

ICPF's final report was published by Zed Books, UK in September 1994 and formally released the following month by Harlan Cleveland, President of the World Academy of Art & Science at the WAAS General Assembly in Minneapolis, by James Grant, Administrator of UNDP in New York, and by Federico Mayor, Secretary General of UNESCO in Paris. In December 1994, the report was formally submitted to the UN by the Government of Jordan and presented to the UN Secretary General Boutros Boutros-Ghali by Queen Noor of Jordan.

Uncommon Opportunities: Roadmap for Employment, Food & Global Security

An international symposium was conducted in New Delhi on November 19-22, 2004 to examine the relevance in today's world of recommendations contained in the report of the International Commission on Peace & Food, Uncommon Opportunities: Agenda for Peace & Equitable Development, which was submitted to the UN in 1994. The conference was inaugurated by Dr. A.P.J. Abdul Kalam, President of India. The keynote address was delivered by Mr. Natwar Singh, Minister of External Affairs. The meeting was co-sponsored by MSS, the International Centre for Peace & Development (USA), the M.S. Swaminathan Research Foundation (India), the National Farmers Commission (Government of India), the UN World Food Program and the World Academy of Art & Science. The conference explored the inextricable mutual interdependence between peace, social stability, democracy, employment and food security. The conclusions of the Delhi meeting will be examined further at an international symposium on nuclear disarmament and terrorism in Washington DC in September 2005 and during the General Assembly of the World Academy of Art & Science in Zagreb, Croatia in October 2005.

International Food Security

After the onset of the Tsunami in December 2004 which left millions of people homeless and without access to food, the Society undertook a study to promote international food security by establishment of an International Food Corporation to play a role similar to that which Food Corporation of India played in eliminating famine in India.

Western Social Problems

In 1983, the Society initiated a research project on an Indian Perspective of Western Social Problems. A new theoretical framework has been evolved for examining the developmental problems of Western societies based on Sri Aurobindo's view of the evolution of consciousness and traditional Indian concepts of the individual and society. This framework was applied to examine the development of the United States and identify the evolutionary factors responsible for contemporary American social problems such as violence, drug abuse, environmental pollution, breakdown of the family, loneliness, boredom and isolation. A paper entitled "Contemporary American Social Problems" was presented by the Society at the XI Quinquennial Congress of the International Union of Anthropological and Ethnological Sciences held at Vancouver, Canada in August 1983. The Commission on Development of the International Union of Anthropological and Ethnological Sciences, constituted a Subcommission on Western Social Problems, with a member of the Society as Convenor.

Brandt Commission Report

Based on its observations and experience in India, the Society conducted original research on the process of development at the international level. When the International Commission for International Development Issues, otherwise known as the Brandt Commission, was established in 1978 under the Chairmanship of the German Nobel Laureate, Willy Brandt, the Society prepared a set of recommendations to facilitate international cooperation and presented two reports to Dr. Dragoslav Avramovic, Director of the Secretariat of the Commission in Geneva.

III. Law and Governance

Governance & Global Rule of Law

MSS continues collaboration with Professor Winston Nagan, Chairman of the Board of WAAS and Director, Institute for Human Rights, Peace and Development at the University of Florida, on the evolution of law as an instrument for social development at the national and global level and the problems of governing an increasingly globalized world community in which legal and political power still reside largely with nation states that claim principles of national sovereignty. The project has generated the following published research papers: “New Paradigm for Global Rule of Law” and “Evolution from Violence to Law to Social Justice” (*Cadmus*, Apr 2012), and “The Evolution of Sovereignty” (*Eruditio*, Sep 2013). Discussions on the relationship between social process, political process and constitutive process were conducted at several international conferences related to the New Paradigm Project.

In 2012-13 MSS conducted research for a web seminar it organized in collaboration with WAAS on ‘The Global Rule of Law’ in May. The seminar was intended to explore the relationship between the social, political and legal dimensions of global rule of law in an effort to frame the boundaries of a wider approach to the evolution of global governance.

In 2013-14, research focused on the problems of governing an increasingly globalized world community in which legal and political power still reside largely with nation states that claim principles of national sovereignty, even over actions which impact on the entire world community. An article on “The Evolution of Sovereignty” appeared in *Eruditio Journal* in September 2013. Discussions on the relationship between social process, political process and constitutive process were conducted at several international conferences related to the New Paradigm Project.

Democracy, Peace and Global Governance

MSS continued its research project on the future of democracy and global governance in 2018-2019. A preliminary report on the Society’s research on political economy, neoliberalism and democracy was presented at an international conference at Kyung Hee University in Seoul, Korea on September 21, 2017 in which Irina Bokova, former Director General of UNESCO was also a speaker.

A three-day roundtable on Future of Democracy was conducted at the Inter-University Centre, Dubrovnik on April 3-5, 2018 by WAAS and World University Consortium in collaboration with Dag Hammarskjöld University College of International Relations and Diplomacy (Croatia), Mother’s Service Society (India) and the Person-Centered Approach Institute (Italy).

On May 28-29, 2018 the Parliament of Georgia hosted an International Conference in Tbilisi “2030 Agenda for Sustainable Development—Exploring challenges and lessons learnt for the next level of ambitious implementation”. Conference participants included nine ministers and senior officials of the Government of Georgia, the regional representatives of UNDP and World Bank, representatives of OECD, the Inter-Parliamentary Union, and other international experts. MSS staff presented at the event.

The Institute for Advanced Studies in Levant Culture and Civilization, a WAAS Centre of Excellence, organized an exploratory workshop in good governance in the Levant at Bucharest on October 29-30, 2018. The meeting brought together international and national members of the Institute's Scientific Council who are WAAS Fellows together with external experts and research staff of the Institute. MSS was represented by Garry Jacobs who presented a paper and served on a panel at the event.

Two roundtables on "Governance & Law: Challenges & Opportunities" and "Future of Democracy: Challenges & Opportunities" were held on November 5-6, 2018 and November 7-9, 2019 at the World Bank in Washington D. C and Ethical Markets Media, in St. Augustine, Florida respectively. The roundtables explored the foundations of democratic governance, the challenges confronting democracies today, the impact of globalization and neoliberalism on democratic societies and politics, the continued struggle over the distribution of power and rights in modern societies, the challenges posed by technological advances and social media, the impact of resurgent nationalism and populism, proven remedies and alternative approaches available to enhance the institution's effectiveness and reinforce underlying democratic principle, and evolutionary alternatives that might gradually supplant the forms of democracy prevalent today. MSS staff presented at the roundtables co-organized by WAAS and WUC.

WAAS collaborated with the Inter-Parliamentary Coalition for Global Ethics (Global Institute and Alliance for Peace Beyond Borders) and the Institute for Advanced Studies in Levant Culture and Civilization (ISACCL) and conducted on March 7-9, 2019, a High Level Forum in the Italian Senate in Rome on the theme "The Levant Initiative for World Peace". MSS staff spoke at the event.

The Kopaonik Business Forum, held on March 3-6, 2019 at the Kopaonik Mountain, in the central part of Serbia, was the largest annual meeting of businessmen, economists, experts, researchers, scholars, politicians and diplomats in Southeastern Europe. This year, its topic was "Serbia Ten Years after the Great Recession: The Imperative for the Robust Growth." The organizer of the event was the Serbian Association of Economists. Garry Jacobs delivered a keynote address based on the research findings of MSS on social and economic development.

Commemorating the 30th anniversary of the end of the Cold War, the Institute for Advanced Studies in Levant Culture and Civilization (ISACCL), a WAAS Centre of Excellence, in partnership with the Romanian Foundation for Democracy and with the support of the Romanian Government and the Romanian Ministry of Foreign Affairs, will organize the International Conference on "30 years since the Collapse of Communism in Eastern Europe: The Role of Cultural Diplomacy in Approaching Protracted Conflicts", in Bucharest in April 2019. MSS staff will participate in the event.

On June 4-6, 2019 the Russian Academy of Sciences, the Russian Ministry of Science and Higher Education and Lomonosov Moscow State University in collaboration with UNESCO conducted an international conference on "Topical Issues of global studies: Russia in the Globalizing World." MSS staff participated in the event.

Publications: "The Future of Democracy: Challenges & Prospects" by Garry Jacobs et al., was published in Volume 3 Issue 4 of Cadmus Journal in May 2018. MSS staff published a paper titled "The Reunification of Germany & Global Social Evolution" in

Volume 3 Issue 5 of Cadmus Journal in October 2018. A paper titled “Ideas that Changed the World” by Ashok Natarajan was published in Cadmus Journal Volume 3 Issue 6 in May 2019. “Beyond the Nation-State: Failed Strategies and Future Possibilities for Global Governance and Human Wellbeing” by Garry Jacobs was published in the October 2019 issue of Cadmus Journal. “Advantages and Disadvantages of Global Unity & Disunity” by Ashok Natarajan was published in the October 2019 issue of Cadmus Journal.

IV. MONEY

Money may be considered the single greatest organizational invention of the past five thousand years comparable in its impact to that of language and the Internet. The emergence of money as a pre-eminent social institution vividly illustrates the central role of organization in the process of social development. MSS is engaged in a major research project examining the theoretical and historical foundations for the social institution of money as an application of development theory. The research includes an examination of the underlying social causes of inflation, the factors leading to the onset of the Great Depression, as well as the Japanese and East Asian financial crises. In 2007, the Society began the first draft of a book presenting its theoretical perspective on the nature and role of money in social development.

Inflation and Development



In 1979, the Society undertook a research project to examine the primary causes underlying the high rates of inflation that frequently accompany rapid economic development. The study found that the greater stress on basic human rights and increasing social importance given to the common man indirectly contributed to higher rates of inflation. The results of the study, which were published as a four part article in "The Hindu" (Left) and sent to leading economists around the world, suggest that there is an inverse relationship between the purchasing power of currency and the social value accorded to the common man.

Inflation in Yugoslavia

In the aftermath of the war in Yugoslavia and the blockage of Serbia by Western powers, Serbia suffered from hyperinflation in the range of one million percent, perhaps the highest level ever recorded anywhere. After discussions with society staff, Dr. Dragoslav Avramovic, former Director of the Brandt Commission and a member of ICPF, was appointed as President of the Federal Bank of Yugoslavia. Applying a strategy proposed by a Russian Commission member during Gorbachev Foundation Conference, inflation was brought down to single digit levels within one or two weeks in Serbia, a previously unimaginable achievement.

East Asian Financial Crisis

Following the sudden collapse of the economies in East Asia, the Society embarked on a research project to investigate the causes of the crisis and to formulate possible remedies. The Society attended the Conference of the Pacific Rim Economics Associations in Bangkok in 1998 to exchange views and present its recommendations. An article summarizing our approach was published by The Hindu. Further research is in process

on the origins, cause and remedy for the Japanese financial crisis that began in 1988 and still impeded growth of the Japanese economy.

Japanese Banking Crisis

In 1999, MSS conducted a study of the financial crisis brought on in Japan during the decade following the collapse of real estate and stock market prices after Central Bank action in 1988 which resulted in losses by Japanese banks estimated at \$500 billion. In January 2000, MSS researchers submitted proposals to Japanese commercial and Central Bank officials on strategies to end the crisis, reverse the losses and recover a major portion of the write-offs.

Theory of Money

MSS is presently engaged in preparation of a book examining money as a social organization from the perspective of social development theory. The central thesis of this study is that money, like other social institutions, undergoes a continuous process of evolution reflecting changes in social consciousness, values, attitudes and organization. Each stage in the evolution of money has enhanced its capacity to convert social potentials into social power, thereby contributing to the economic development of society, rising levels of productivity, efficiency and prosperity. In addition, money serves as a symbol for human aspirations and a vehicle for releasing higher intensities of social and individual energy for higher levels of human accomplishment.

International Financial Crisis & Evolution of Money

In 2007 & 2008, the Society conducted research on the subprime mortgage crisis in the USA and on the international financial crisis which resulted from it. Our research focuses on the essential need for greater international financial regulation to control the explosive growth of global financial assets and the case for creation of a global central bank and world currency as an ultimate solution to the problem. MSS organized and chaired a session on this topic at the General Assembly of the World Academy of Art & Science in Hyderabad in October 2008. The Society is also preparing the first draft of a book presenting its theoretical perspective on the nature and role of money in social development.

New Economic Theory

For the past three years, MSS has been collaborating with the World Academy of Art & Science to establish the foundations for human-centered economic theory focused on the goals of human welfare and well-being. MSS created a new website www.neweconomictheory.org. MSS staff have co-authored a series of research papers in *Cadmus Journal* and participated in a series of international conferences at Dubrovnik (Sep 2011), Bern (Oct 2011), New Delhi (Nov 2011), Trieste (Mar 2012), Rotterdam (May 2012), Bucharest (Sep 2012), the UN Office in Geneva (Jun 2013), Ottawa (Sep 2013), Podgorica (Mar 2014), Baku (Apr 2014) and Almaty (Nov 2014).

In 2013 MSS research focused on the origins of money and the historical evolution of monetary and financial systems; role of money as a social institution and networking mechanism for the development of society; the role of financial markets in economic development; and ways to more accurately reflect the true costs of labor, ecological

resources and environmental pollution. In September 2013, MSS presented its findings at an international conference of the Club of Rome in Ottawa. An article on money and another on the role of the individual in economic theory appeared in the May 2013 issue of *Cadmus Journal* titled “Multiplying Money” and “Steve Jobs: Nobel Laureate” respectively. In 2014 discussions were conducted for preparation a college level course on new economic theory in collaboration with members of WAAS and the Club of Rome.

MSS continued its research on new economic theory in collaboration with WAAS. MSS presented a paper on the need for new theory in economics at the XI International Economics Colloquium on Global Crisis and Changes of Paradigms, at the University of Brasília, Brazil, May 6-8, 2014. MSS co-organized a one-day meeting at the Institute of Economy, Russian Academy of Sciences in Moscow on May 24th on the need for new economic theory. In September 2014, MSS participated in discussions at Inter-University Centre (IUC) Dubrovnik and in October 2014 at the Club of Rome annual meeting in Mexico City on a proposal to develop a post-graduate course on human-centered development theory. A small working group was constituted and preparations were undertaken for presentation at an international conference to be conducted at the University of Florida, Gainesville in May 2015. A paper outlining the Society’s approach was prepared for presentation at Gainesville entitled “Contours of New Economic Theory” and published in the May 2015 issue of *Cadmus*. The World Academy of Art & Science and World University Consortium conducted a webinar on “The Greek Crisis: Need for a Human-centered Theoretical Framework” on September 15, 2015. A paper titled “The Greek Financial Crisis – Theoretical Implications” by Garry Jacobs and Mark Swilling was published in *Cadmus Journal* in the October 2015 issue. The XII International Colloquium took place in Gainesville, Florida, USA at the Levin College of Law at the University of Florida, from May 20-22, 2015. Garry Jacobs’ paper “Money, Markets and Social Power” was published in the May 2016 issue of *Cadmus Journal*. The XIII International Colloquium held in Lisbon on May 11-13, 2016, explored the eco-social and political transitions and their consequences. The New Economic Theory Working Group established the groundwork for development of human-centered economic theory. MSS participated in an international conference organized by WAAS and Kyung Hee University, Seoul, titled “New Paradigm and Planetary Engagement” in September 2016. Garry Jacobs co-chaired a session on the need for human-centered economic theory and also presented at the conference. MSS staff presented in October 2016 at the Kiev International Economic Forum “Ukraine: On the threshold of the Fourth Industrial Revolution”, a forum designed to create a new strategy for technological, social and economic modernization of Ukraine. WAAS and WUC convened a gathering of the New Economic Theory Working Group of which MSS is a member for a lecture series on new perspectives in Economics to promote human welfare and well-being held at IUC Dubrovnik, Croatia, from January 31-February 3, 2017.

In continuation of its research project on New Economic Theory, on May 10-12, 2017 MSS collaborated with the World Academy of Art & Science, the World University Consortium, the Sustainability Institute of Stellenbosch University, South Africa, and the University of Brasilia to conduct the 14th International Colloquium in Cape Town, South Africa. The conference focused on the linkage between our work on economic theory, social power and democracy. It included a presentation by Mcebisi Jonas, former Deputy Finance Minister of South Africa and a leader of the mass movement of civil society, businesses, on the role of money and economy in politics and the attempted take-over of state institutions by private business interests. It included a presentation of a report of

MSS on The Political Economy of Neoliberalism and Illiberal Democracy. The conference ended with a meeting of the New Economic Theory Working Group, co-chaired by MSS Vice President Garry Jacobs, which accepted the report prepared by MSS and partner institutions on Quest for a New Paradigm in Economics - A Synthesis of Views of the New Economics Working Group. The group accepted the invitation to conduct the next conference at the University of Paris Nord in May 2018.

The 1st International Scientific Conference Agenda 2030: Economics in a changing world: MSS presented at paper on “Need for Human-Centered Economic Theory” at this international conference held in Umag, Croatia on August 27-28, 2017. The conference was organized by the EXEL Scientific Economics Lab and WAAS.

The Global Blockchain Summit: Garry Jacobs participated and presented at a high profile conference in Denver on April 19-20, 2018 in which he focused on the nature of money as a networking tool designed to promote economic relationships and wealth creation.

MSS has constituted an international working group to collaborate on development of a post-graduate course on new economic theory. The group consists of leading institutions in different countries and prominent social scientists to evolve the framework for a transdisciplinary, human-centered theory of economy that maximizes human welfare, full employment, equality and ecological sustainability. Institutional partners include World Academy of Art & Science (USA), World University Consortium (USA), University of Florida (USA), Stellenbosch University (South Africa), University of Brasilia (Brazil), New Economy Foundation (UK), World Resources Forum (Switzerland), YK Centre (Israel) and others. MSS plans to design a comprehensive course curriculum, development of core questions and perspectives for each module of the course, coordination of content of the modules and formulation of a coherent, cohesive integrating intellectual framework. MSS staff participated and presented at the event.

Garry Jacobs, representing MSS and the World Academy of Art and Science, was invited to share the findings of the research on Human-Centered Economic Theory and the potential for rapid global social transformation at the Global Blockchain Summit in Denver on April 19-20, 2018. MSS staff participated and presented at the XV International Colloquium titled “The role and impact of International Institutions on Economic Theory and Policy” held on May 2-4, 2018 at Paris Nord University, Paris.

Publications: Papers based on MSS research were published in Cadmus, the international journal of the World Academy of Art & Science. “Quest for a New Paradigm in Economics”, (Cadmus Vol 3.2, May 2017) and “The Political Economy of Neoliberalism and Illiberal Democracy” (Cadmus Vol 3.3 Oct 2017). [3, 4] A new paper on “Cryptocurrencies & the Challenge of Global Governance” has been accepted for publication in the May 2018 issue of Cadmus Journal (V2 I4).

Global Institute for Sustainable Futures

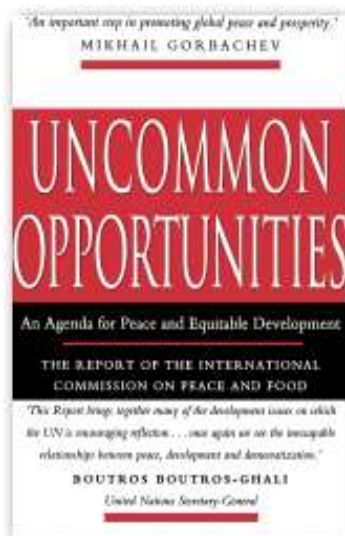
The Society prepared a concept note for establishing a multi-stakeholder Global Institute for Sustainable Futures in collaboration with Kyung Hee University, South Korea, and

presented it to Ban Ki-moon, former UN Secretary General, in July 2017. He strongly endorsed the proposal and expressed his willingness to collaborate with us.

Publications:

A paper titled “Challenges and Opportunities for the Korea and the World” [7] was published in Cadmus Volume 3, Issue 3 (October 2017) by MSS staff.

V. INTERNATIONAL COMMISSION ON PEACE & FOOD



In October 1988, the Society conducted a small conference of distinguished persons in Washington D.C. to discuss a proposal to establish a new international initiative to promote disarmament and defense, food production and employment generation. As a result of the recommendations of the participants, the International Commission on Peace and Food (ICPF) was established in early 1989 headed by Dr. M. S. Swaminathan, internationally renowned scientist, former member of the Indian Union Planning Commission, and first recipient of the World Food Prize, with Garry Jacobs, Vice President of MSS, as Member Secretary, and Robert Macfarlane, Treasurer of MSS, as Treasurer. The Commission consisted of 30 international experts on food, development and peace issues from 20 and included three staff members

of the Society.

Over the succeeding years, ICPF conducted seven international conferences and set up five working groups to study issues related to The Commission focused on evolving solutions to pressing global issues related to international security, global governance, employment, food security, transition in Eastern Europe and human development. In addition, it undertook country specific research projects in Russia and India.

Membership

Commission members included former US First Lady Rosalynn Carter and Queen Noor of Jordan; James Ingram, Director General of UN World Food Program; Dr. Dragoslav Avramovic, former Director of the Brandt Commission; Dr. Abdus Salam, Nobel Laureate in Physics and President of the Third World Academy of Sciences; Umberto Colombo, Minister of University and Scientific Technical Research, Government of Italy and former Chairman of Italian Atomic Energy Commission; Dr. Alexander Nikonov, President of the All-Union Academy of Agricultural Sciences and Dr. Victor Nazarenko, Director of the Russian Institute for Information and Techno-economic studies of the Agro-Industrial Complex of USSR; Dr. Martin Lees, President of the UN University for Peace in Costa Rica; Dr. Lal Jayawardena, Director of the UN World Institute of Development Economic Research in Helsinki; Brian Walker, Director of Earthwatch Europe; John Mellor, Director of the International Food Policy Research Institute in Washington D.C.; Eugene Whelan; former Canadian Minister of Agriculture; Uma Lele,

World Bank economist; Mary King, former Asst. Director of the U.S. Peace Corps; Jasjit Singh, Director of the Indian Institute of Defense Studies and Analysis in Delhi; Erling Dessau, Resident Representative of UNDP in India; Edward Williams, Winrock International, USA; Dr. Manfred Kulesa, former Managing Director of German Development Service; Dr. A. T. Ariyaratne, President of Sarvodaya Shramaana in Sri Lanka; Garry Jacobs, Robert Macfarlane and Robert van Harten of the Mother's Service Society; and others.

Conferences

Between 1989 and 1994, the Commission conducted five plenary meetings of its members, which the Society helped to organize and support financially. The first was conducted at the International Centre for Theoretical Physics in Trieste, Italy in October 1989 in collaboration with the Third World Academy of Sciences. At that meeting, the Commission approved its terms of reference and plan of work for the successive five years.

An interim meeting of ten Commission members was organized and sponsored by the Society in Washington DC on April 28, 1990 to review progress since the Trieste meeting, to identify countries for ICPF's research work, and to discuss the outlines of a Global Compact for Ecological Security.

The second full meeting of the Commission was hosted by the All-Union Academy of Agricultural Sciences in Moscow in November 1990. In addition to Commission members, 25 Soviet experts on agriculture, economics and military conversion were invited to present papers and discuss the impact of economic changes on the USSR. This meeting focused primarily on strategies for economic transition in Eastern Europe, agricultural development and establishment of market mechanisms, efforts to reduce military expenditure and the proposal to establish a World Army.

The Society sponsored the third plenary meeting of the International Commission on Peace and Food in Madras from October 2-4, 1992, for which approval was granted by the Department of Economic Affairs of the Ministry of Finance. Fifteen delegates from around the world joined with ten distinguished Indian delegates to discuss critical issues related to development, environment and defense. The Society's study of employment potentials in India was presented at the meeting and endorsed by the participants. The terms of reference were formulated for second phase of the study. Participants also framed a proposal for presentation at the UNCED Conference in Rio de Janeiro calling for establishment of employment guarantee programs emphasizing environmental projects such as afforestation, wasteland de-velopment, biomass utilization and watershed management. The Governor of Tamil Nadu hosted a special dinner for the participants.

The fourth plenary meeting of the Commission was hosted by the Norwegian Agricultural Research Council in Oslo in September 1992. Here attention focused on issues related to the first Gulf War and the on-going war in the former Yugoslavia.

The fifth meeting is being hosted by the Carter Presidential Center in Atlanta, Georgia, USA during October 1993. At this meeting, Society staff presented the findings of the

working group on Employment and strategies to shift from competitive to cooperative global security paradigm.

Strategy for Full Employment in India

Under the auspices of ICPF, The Society undertook a major study in 1991 to assess the long term employment needs of the country and to identify possible strategies to meet those needs, focusing on the potentials for increasing productivity and employment in agriculture and agro-industry. The research team, headed by Dr. G. Rangaswami, conducted in-depth studies of technical and commercial potential in 8 sectors of agriculture including horticulture, sugarcane, cotton, aquaculture, sericulture, oil seeds, food grains, irrigation and wasteland development for plantation forestry and fodder production as well as examining opportunities for growth of dairy, poultry and plantation crops. These studies assessed the scope for upgrading technology to increase productivity, expanding production, improving quality, domestic and export market potential, economics of production, links with processing, and organizational mechanisms to encourage growth in these sectors. The sectoral studies were then amalgamated to assess the overall potential impact of these potentials on employment in agriculture, agro-industry and downstream businesses, the estimated investments required by government, banks and private sector, the profits and jobs that would be generated by large scale implementation.

The findings of the study indicate that it is possible to create 100 million new jobs in India within a ten year period through intensive development of commercial agriculture and agro-industries. The study projects creation of 45 million direct jobs in agriculture, 12-15 million jobs in direct downstream agro-industries and another 40 million in other rural and urban enterprises. The average cost of new jobs in agriculture and agro-industry works out to Rs. 20,000, compared with Rs. 2,50,000 in the private sector. The strategy could generate an additional Rs. 200,000 crores of GDP, equivalent to a 37% increase at constant prices. The relatively low capital outlay would make it possible to finance the direct costs of the program within the present budgetary limits of the five year plans.

The findings of the study were presented for review and discussion at ICPF's plenary meeting in Madras in October 1991. A seminar was organised in collaboration with the Institute of Rural Management at Anand during November 1991 at which 25 leading politicians, economists, planners and heads of voluntary agencies reviewed and endorsed the strategy and proposed appropriate mechanisms for its adoption and implementation by Government.

The strategy and recommendations were presented to senior officials in the Government of India, including the Prime Minister and his Additional Secretary, the Deputy Chairman and three members of the Planning Commission, the Minister and Secretary of Agriculture. In February 1992, the Planning Commission officially adopted the strategy and it was incorporated in the Eighth Five Year Plan document and the Finance Minister's 1992 Budget. As its first practical step, the Government decided to establish the Small Farmers Agri-Business Consortium to implement the strategy in 12 model districts around the country. Implementation studies have been launched in Pune District of Maharashtra, Dharmapuri District of Tamil Nadu and other places.

Privatization of Agriculture in USSR

In December 1990, a research team visited Moscow and an agricultural region in Northwestern Russia on a project organized by the All-Union Academy of Agricultural Sciences of USSR to develop a strategy to promote the development of private family farming in the country. The study included visits to private and state owned farms in Pytalova District, Pskov Region, as well as discussions with economists and agricultural specialists in Moscow at the Academy of Agricultural Sciences, The Agrarian Institute, and the Ministry of Food Procurement. Pytalova District was the first in Russia to introduce private farming. At the time of the study there were 147 private family farms in the district, but there was no social or economic infrastructure to support their development and activities. The objective of the project was to identify effective strategies for promoting the development of private farms in Russia. The study team concluded that India's experience in Green Revolution and White Revolution was highly relevant to Russia today.

Indian Food Aid for Russia

At a critical juncture when Russia was suffering from an acute shortage of wheat, the Society submitted a proposal to the Government of India to sanction food aid to Russia and the Government of India offered one million tons of wheat for immediate delivery. An article entitled "Marshall Plan for Russia" was published in The Hindu in December 1990.

Indo-Soviet Dairy Collaboration

In March 1991 The Society sponsored the visit of a Soviet research team to examine India's achievements in dairy development and explore potentials for collaboration between India and USSR on development of a private dairy industry in USSR. The Soviet team was headed by Dr. Rudolph Praust, Head of the Pytalova Rural Observatory of the Agrarian Institute. The team had discussions with Dr. V. Kurien, the Chairman of the National Dairy Development Board, officials in the Ministry of Agriculture and ICAR, and a private dairy businessman in Delhi. They visited the Anand Dairy in Gujarat, the Bharat Agro-Industries Foundation in Pune and NDDB's fruit and vegetable project in Delhi. Following this visit, a delegation of private Indian businessmen visited Russia to continue discussions. Follow-up discussions were held in Moscow in 1992.

Rural Development in Russia--Study of Borovsk District

Three research staff of the Society participated in a study mission to Russia organized by the International Commission on Peace and Food in collaboration with the Russian Institute for Information and Technical-Economic Analysis of the Agro-industrial Complex. The purpose of the mission was to examine conditions at the district level in an agro-climatically representative district of Northwestern Russia in order to identify effective strategies for stimulating agricultural and rural development, drawing on the team's experiences in developing countries like India. The mission team met with senior officials in the Russian Ministry of Agriculture and several economic research institutes, as well as district officials, bankers, state and collective farm managers, private family farmers and managers of industrial enterprises. The team found that despite the macro level efforts of the Russian government to stimulate development through privatization

and liberalisation, conditions at the local level were severely lacking in the institutional infrastructure required for rapid development--extension services, agro-supply services, rural banks, local processing and storage facilities, marketing organisations, and rural industries.

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The recent effort of the Government of India to liberalise and deregulate the Indian economy and the more radical steps being taken by countries of the former Soviet Union to introduce free market economies raise significant questions on the effectiveness of various transition strategies and the underlying linkage between economic reform and the wider field of social change. As a first step in a larger program to examine these issues, the Society prepared a paper identifying some of the fundamental principles governing economic transitions. The paper was presented at the plenary meeting of the International Commission on Peace and Food in Oslo, Norway in September 1992. Articles were published in Moscow News on "Lessons of the Economic Transition in Russia" and "Currency and Price Reform in Russia." A working group including three members of the Society was formed to continue research on strategies to accelerate the economic transition in Russia.

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A conference on the Transition in Russia was organized in collaboration with the Gorbachev Foundation and the Agrarian Institute of Moscow in January 1993. A working group including three members of the Society's research staff completed a draft report in June 1993 on strategies to accelerate the economic transition in Russia. Former Soviet President Mikhail Gorbachev chaired the conference.

International Center for Peace & Development

ICPF was officially wound up in early 1995 and succeeded by the International Center for Peace & Development, based in Napa, California with Harlan Cleveland as Chairman, Garry Jacobs as Executive Director, and Robert Macfarlane is Treasurer. The objective of ICPD is to carry on the work begun by ICPF.

Uncommon Opportunities: Agenda for Peace and Equitable Development

ICPF's final report was published by Zed Books, UK in September 1994 and formally released the following month by Harlan Cleveland, President of the World Academy of Art & Science at the WAAS General Assembly in Minneapolis, by James Grant, Administrator of UNDP in New York, and by Federico Mayor, Secretary General of UNESCO in Paris. In December 1994, the report was formally submitted to the UN by the Government of Jordan and presented to the UN Secretary General Boutros Boutros-Ghali by Queen Noor of Jordan.

Uncommon Opportunities: Roadmap for Employment, Food & Global Security

An international symposium was conducted in New Delhi on November 19-22, 2004 to examine the relevance in today's world of recommendations contained in the report of the International Commission on Peace & Food, *Uncommon Opportunities: Agenda for Peace & Equitable Development*, which was submitted to the UN in 1994. The conference was inaugurated by Dr. A.P.J. Abdul Kalam, President of India. The keynote address was delivered by Mr. Natwar Singh, Minister of External Affairs. The meeting was co-sponsored by MSS, the International Centre for Peace & Development (USA), the M.S. Swaminathan Research Foundation (India), the National Farmers Commission (Government of India), the UN World Food Program and the World Academy of Art & Science. The conference explored the inextricable mutual interdependence between peace, social stability, democracy, employment and food security. The conclusions of the Delhi meeting will be examined further at an international symposium on nuclear disarmament and terrorism in Washington DC in September 2005 and during the General Assembly of the World Academy of Art & Science in Zagreb, Croatia in October 2005.

VI. PEACE & SECURITY

MSS has conducted a range of studies on international peace and security issues in collaboration with the International Commission on Peace & Food and the World Academy of Art & Science.

Abolition of Nuclear Weapons

MSS continued its collaboration with the World Academy of Art & Science and the Center for Strategic and International Studies to conduct a session in New Delhi on strategies to abolish nuclear weapons in November 2011. A report was prepared on international public opinion regarding the legality, production and use of nuclear weapons, especially data reflecting changes since 1990-95, to trace the change in public opinion regarding nuclear weapons. The report also included a study of the efforts to form nuclear-free zones internationally. MSS staff did detailed research on the advisory opinion of the International Court of Justice concerning the legality of nuclear weapons in 1996 and the process by which the United Nations General Assembly (UNGA) requested the court to examine this issue. A comprehensive report was prepared tracing the movement of the World Court Project and the overall history of the anti-nuclear movement. The Society has plans to organise a session on the 'Abolition of Nuclear Weapons' as part of the webinar on Global Rule of Law, which is scheduled to be held in May 2012, and a major conference in collaboration with WAAS and European Leadership Network in September 2012.

Nuclear Threats and Security

The World Academy of Art and Science organised an international conference along with the European Leadership Network and Inter-University Center sponsored by the North Atlantic Treaty Organization at Dubrovnik, Croatia on September 14-16, 2012. The conference examined important issues related to nuclear non-proliferation and disarmament, the legality of nuclear weapons and their use, illicit trade in nuclear

materials, the dangers of nuclear terrorism, nuclear- and cyber-security. MSS participated in organizing the conference. Garry Jacobs, representing the Society, made presentations on global governance and the evolution of law, on a strategy for resolving the international nuclear crisis with Iran, and on a proposal to conduct an international referendum on the legality of nuclear weapons. Research articles co-authored by MSS on "[Sovereignty and Nuclear Weapons](#)" and "[Nuclear Threats & Security](#)" were published in *Cadmus* journal.

Disarmament and Military Conversion

The end of the Cold War has generated a much more conducive international atmosphere for peace and security. The major powers have made substantial cuts in military spending, resulting in a 30% decline in worldwide defence expenditure since 1988. The international financial institutions and Western nations are exerting increasing pressure on developing countries such as India to significantly cut defence spending as a condition for bilateral and multilateral development assistance. While the movement toward disarmament is very welcome, by itself it does not take into account the legitimate security concerns and real threats to developing countries that necessitate maintenance of military preparedness. Continued progress toward disarmament cannot be achieved without first creating an alternative mechanism to ensure the security against external aggression of nations that agree to reduce their military. Thus far, the United Nations has not proved effective for this purpose except in instances such as the Gulf War where the interests of the Western powers were strongly involved. The Society has evolved a proposal for establishment of an international standing military force, World Army, to offer protection to nations against external aggression. The World Army can be established outside the present UN structure on a voluntary basis, similar to NATO, but strictly for defensive purposes to protect member nations. This proposal was presented to the United Nations and discussed at meetings organized by the International Commission on Peace & Food at UNDP in New York and UNESCO in Paris.

Defence Conversion in USA

Western critics of disarmament site the dangers of rising unemployment as a reason to maintain high levels of military spending at a time when there is no military threat to justify it. As a support for reduced military spending, Society has conducted case studies of more than 20 defence-related manufacturing companies in the USA to demonstrate that there is considerable scope for these businesses to diversify into commercial fields of business without losing the basic skills and manufacturing expertise they have acquired. These studies involved work with ten companies in Kansas and another ten companies in Minnesota, USA.

Indo-Pakistan Economic Initiative

In 2000, MSS launched a new initiative to reduce tensions and build public support for the peace process in India and Pakistan by documenting and publicizing the potential economic benefits to all parties from a peaceful resolution of bilateral issues and close economic cooperation. The Society formulated a proposal for an initiative to document and publicize the potential economic benefits from a normalization of ties between India and Pakistan leading to closer economic cooperation.

In May of 2000, MSS had discussions with high level officials in New Delhi and received strong support and encouragement for the initiative. These included two meetings each with L. K. Advani, Home Minister of India, and Brajesh Mishra, National Security Adviser and Principle Secretary to the Prime Minister of India; as well as meetings with Jaswant Singh, External Affairs Minister of India; Farooq Abdullah, Chief Minister of Jammu & Kashmir, along with five members of his cabinet; Sonia Gandhi and other senior officials of the opposition Congress I party in India; Richard Celeste, US Ambassador to India; Ashraf Qazi, Pakistan High Commissioner to India; Abdul Ghani Bhat, President of the All Party Hurriyat Conference of Kashmiri militant organizations; Jasjit Singh, Director, Institute for Defense Studies and Analysis in New Delhi; Director of the Center for Policy Research; and S. Sen, Deputy Director of the Confederation of Indian Industries.

In July 2000, two representatives of the Society traveled to Pakistan for meetings with senior government officials including Abdul Sattar, Foreign Minister of Pakistan; Shaukat Aziz, Finance Minister of Pakistan; John Schmidt, Deputy Chief of the US Embassy in Islamabad; Sudeer Vyas, Acting Indian High Commission to Pakistan; as well as scholars from the Institute of Strategic Studies and Institute of Regional Studies.

In August and September 2000, two representatives of the Society traveled to USA for discussions with senior government officials on the project, including Karl Inderfurth, US Assistant Secretary of State, and other representatives of the US State Department and Commerce Department; Dr. Maleeha Lodhi, Pakistan Ambassador to the USA; Robert Radtke, Vice President, Policy Programs, Asia Society; Michael Clark, CEO, US-India Business Council; and T.P. Sreenivasan, Indian Deputy Chief of Mission.

Following these meetings, the Society identified and made contact with three potential collaborators for the project in India and Pakistan: the Confederation of Indian Industry, the Federation of Pakistan Chambers of Commerce, and the Lahore University of Management Studies. In March 2001, the Society met with the three organizations in New Delhi to finalize the scope of the project, a plan of action and budget. All three organizations agreed to participate provided sufficient funding could be arranged.

The earlier effort in collaboration with the Confederation of Indian Industry did not materialize after the increasing tensions that followed the Agra Summit in July 2001. In December 2001, the Society conducted a series of discussions with the Federation of Indian Chambers of Commerce and Industry and the Federation of Pakistan Chambers of Commerce and Industry. The Society obtained the consent of both FICCI and FPCCI to initiate the project under the auspices of the Indo-Pakistan Chamber of Commerce. The first meeting was scheduled for December 31, 2001 in New Delhi. Unfortunately, following the terrorist attack on the Indian Parliament on December 13th, air links between the countries were suspended and the project has been placed on indefinite hold.

Terrorism in Ireland

In early August 2005, the Irish Republican Army announced a permanent cease-fire and end to its violent quest for political change in North Ireland. While the world heralded this sudden, dramatic breakthrough, there has been little effort to explain how and why it had happened. In this context, the Society undertook a study to examine the social context in which the breakthrough was achieved and concluded that it was directly linked

to the phenomenal economic advancement of the Republic of Ireland, which had been a major supporter of IRA violence. The study confirmed the Society's earlier findings that economic advancement can mitigate or eliminate the impulse toward violence. This finding supports the view that the growing gap between social expectations and existing economic conditions fuels rising violence in society. The findings indicate that rising levels of employment and economic opportunity in Ireland contributed to the gradual reduction in incidents of terrorist violence in North Ireland from 1992 to present. This suggests that a similar strategy based on economic development and employment could be effective in Kashmir and other regions as well. The results of this study were presented at an international conference in New Delhi during November 2004 jointly sponsored by MSS, the International Center for Peace & Development (USA), the World Academy of Art & Science, and other organizations.

NATO Workshop on Peace & Security

In November 2005, the Society co-funded and participated in a three day workshop on peace and security issues organized by WAAS and sponsored by NATO. The workshop focused on issues related to nuclear disarmament, elimination of terrorism, establishment of a rapid deployment force, and strategies to promote cooperative security. Society staff made presentations during the workshop on terrorism and nuclear disarmament.

Abolition of Nuclear Weapons

In 2004 the Society initiated a new research project on strategies for achieving total global nuclear disarmament. During November 2004 a group of experts chaired by the Society was convened for an international symposium in New Delhi, including retired senior officials from the Indian Navy and Air Force as well as international security experts from USA and Europe.

In 2005-06 the Society sponsored and participated in two workshops on peace and security issues. In September 2005, the Society co-sponsored a one-day international workshop on nuclear abolition at Washington DC in collaboration with the World Academy of Art & Science. Participants included former US Defence Secretary and World Bank President, Robert McNamara, former US Ambassador to NATO, Harlan Cleveland, Director of Centre for Strategic and International Studies (New Delhi), Jasjit Singh, as well as senior executives of the World Academy and three representatives of the Society. The meeting focused on abolition of nuclear weapons and establishment of a global cooperative security system. The Society presented papers on establishment of a World Army. The meeting concluded with a proposal to focus on legal efforts to outlaw the use and possession of nuclear weapons on a parallel to what has been done to eliminate chemical and biological weapons through international treaty.

In November 2005, the Society participated in a workshop at Zagreb, Croatia co-sponsored by the World Academy of Art & Science and NATO on strategies to enhance international security. The Society made presentations on strategies to abolish nuclear weapons and establish a global security system to promote a culture of peace.

On November 24-26, 2005, three members of the Society were invited to participate in the Sixth World Summit of Nobel Peace Laureates organized by the Gorbachev Foundation in Rome, Italy. The meeting was chaired by President Mikhail Gorbachev.

More than a dozen Nobel peace laureates and peace laureate organizations participated. The Society held discussions at the meeting with Jonathan Granoff, President of Global Security Institute, USA, on strategies to achieve nuclear disarmament.

In July 2006, the Society co-sponsored a session on nuclear disarmament at the World Futures Conference in Toronto, Canada and presented a paper on strategies for nuclear disarmament which was published in October 2007.

On September 28-29, 2006, the Society was invited to send a special delegation to a high level international meeting of the Middle Powers Initiative in Ottawa, Canada. The conference was hosted by the Foreign Ministry, Government of Canada and inaugurated by Peter Gordon MacKay, Foreign Minister of Canada. It was chaired by the founder of the Middle Powers Initiative, Senator Douglas Roche, Canada. More than 100 participants attended the conference, including diplomats from international organizations and countries around the world plus representatives of leading international NGOs.

On October 12-13, 2006, the Society co-sponsored a workshop on Nuclear Disarmament in New York together with The World Academy of Art & Science and the Global Security Institute. Participants included three representatives of the Society and leading international experts on nuclear weapons and disarmament issues.

Indian Prime Minister, Manmohan Singh, inaugurated an international conference in New Delhi on June 9-10, 2008 to mark the 20th anniversary of Prime Minister Rajiv Gandhi's historic speech to the United Nations calling for complete nuclear disarmament. The conference was organized by WAAS Fellow Jasjit Singh, head of the Centre for Strategic and International Studies, and sponsored by the Ministry of External Affairs of the Government of India. Other keynote speakers included India's President, Pranab Mukherjee; the Vice President of India, Mohamad Hamid Ansari; Minister Mani Shankar Iyer; Canadian Senator Douglas Roche; Australian Ambassador Richard Butler; senior Indian diplomats and military officers; as well as Fellows Jonathan Granoff of Global Security Institute (USA) and Garry Jacobs of the Society.

On February 7-8, 2011 the Center for Air Power Strategy, New Delhi and WAAS conducted a two day international symposium in New Delhi on strategies to abolish nuclear weapons. The meeting included delegates from USA, Europe and India. Garry Jacobs presented a paper during the conference representing the Society.

Standing Committee on Peace & Development

Following the conclusion of the WAAS General Assembly in 2005, the Board of Trustees of WAAS decided to constitute a Standing Committee on Peace & Development with specific focus on a program to eradicate nuclear weapons. A member of the Society was appointed Chairman of the Committee and ex-officio Board member of WAAS.

Toward a World without Nuclear Weapons

The Society prepared and presented a paper at the Annual Conference of the World Future Society in Toronto entitled "Dangerous knowledge: Can nuclear weapons be abolished?" in collaboration with the Centre for Strategic & International Studies (New Delhi). The article was published by Futures journal in Spring 2007. Another paper was prepared and presented by MSS at the international conference in New Delhi on June 9-10, 2008 and published in the book *Toward a Nuclear Weapons Free World* edited by

Manpreet Sethi. Earlier, the Society was also invited to participate in a high level meeting in Vienna on March 29-30, 2007 of the Middle Powers Initiative, a program of the Global Security Institute involving high level diplomats from 25 non-nuclear countries, the UN and other international organizations. MSS also co-sponsored a project with the World Academy to conduct a global essay competition on innovative strategies to achieve total abolition of nuclear weapons in the world.

Weaponization of Outer Space

On February 26, 2008, MSS participated in a workshop on the weaponization of Outer Space co-sponsored by the Global Security Institute (USA) and the World Academy of Art & Science in NY.

Theory of Peace

Based on discussions at the meetings in Washington, Zagreb and Rome, the Society launched a new research project to develop a comprehensive theory of peace in 2006. A review of literature reveals that while a great deal has been said about the origin and nature of war, there is no theory to explain the nature of peace in society or the process by which lasting peace is achieved. The Society began identifying the basic principles underlying the growing prevalence of peace in human affairs and formulated some preliminary conclusions. Our thesis is that the evolution of human society results in the emergence of social organizations with an ever increasing capacity to establish and maintain peace over larger geographic areas and more heterogeneous populations. Peace is the result of the evolution of human consciousness from the physical to the mental stage and emergence of social organizations to express that consciousness.

End of the Cold War & European Integration

In late 2007, the Society began research on the relationship between the formation of the European Union and the end of the Cold War, tracing back the roots of European Integration to the end of World War II.

International Security & Abolition of Nuclear Weapons

MSS is collaborating with the World Academy of Art & Science to evolve new approaches for international security and nuclear disarmament. Staff participated in international conference on “Actions to Enhance Global Security” organized by WAAS, the European Leadership Network and Dag Hammarskjold University College of Diplomacy (Zagreb, May 3-4, 2013) and at the NATO Conference on “IX Annual NATO Conference on WMD Arms Control, Disarmament and Non-Proliferation” (Split, Croatia, May 6-7, 2013). Our presentations focused on the need to evolve a truly global system of cooperative security that would include Russia and Western countries within a common system. An article “Actions to Enhance Global Security” co-authored by ELN, MSS and WAAS was published in Fall 2013 issue of *Cadmus*. MSS also conducted research on cultural diplomacy and the history of the Arabs and the Jews in the Middle East and presented a paper “Cultural Diplomacy: Strategies for Psychological Evolution of the Levant” at the international conference on “Levant, Cradle of the Cultural Diplomacy: Rediscovering the Mediterranean” (Bucharest, May 23-25, 2013). Other

published articles include “Sovereignty and Nuclear Weapons” and “Nuclear Threats and Security” (*Cadmus*, Oct 2012).

In 2011-12 MSS continued its collaboration with the World Academy of Art & Science and the Center for Strategic and International Studies to conduct a session in New Delhi on strategies to abolish nuclear weapons in November 2011. A report was prepared on international public opinion regarding the legality, production and use of nuclear weapons, especially data reflecting changes in public opinion since 1990-95 regarding nuclear weapons. The report also included a study of the efforts to form nuclear weapon-free zones internationally. MSS staff did detailed research on the advisory opinion of the International Court of Justice concerning the legality of nuclear weapons in 1996 and the process by which the United Nations General Assembly (UNGA) requested the court to examine this issue. A comprehensive report was prepared tracing the movement of the World Court Project and the overall history of the anti-nuclear movement.

In 2012-13 The Society organised a session on the ‘Abolition of Nuclear Weapons’ as part of the webinar on Global Rule of Law, which was held in May 2012. The World Academy of Art and Science organised an international conference along with the European Leadership Network and Inter-University Center sponsored by the North Atlantic Treaty Organization at Dubrovnik, Croatia on September 14-16, 2012. MSS also organized two web-seminars on this subject in collaboration with the World Academy of Art & Science in May 2012 on ‘The Global Rule of Law’ and in May 2013 on ‘The Evolution of Sovereignty’. Research articles co-authored by MSS staff on “Sovereignty and Nuclear Weapons”[Annexure18] and “Nuclear Threats & Security”[Annexure19] were published in the fifth issue of *Cadmus Journal*. A paper based on MSS research was published internationally: “Simulated International Court of Justice Judgment on Legality of Nuclear Weapons”[Annexure20] by Winston Nagan, published in *Cadmus Journal*, April 2012.

MSS continued its collaboration with the World Academy of Art & Science to evolve new approaches for international security and nuclear disarmament. Staff participated in an international conference on “Actions to Enhance Global Security” organized by WAAS, the European Leadership Network and Dag Hammarskjold University College of Diplomacy at Zagreb on May 3-4, 2013 and at the NATO Conference on “IX Annual NATO Conference on WMD Arms Control, Disarmament and Non-Proliferation” in Split, Croatia, on May 6-7, 2013. Our presentation focused on the need to evolve a truly global system of cooperative security that would include Russia and Western countries within a common system. An article “Actions to Enhance Global Security”[Annexure21] co-authored by MSS, WAAS and ELN was published in Fall 2013 issue of *Cadmus*. MSS also conducted research on cultural diplomacy and the history of the Arabs and the Jews in the Middle East and presented a paper “Cultural Diplomacy: Strategies for Psychological Evolution of the Levant” at the international conference on “Levant, Cradle of the Cultural Diplomacy: Rediscovering the Mediterranean”, on May 23-25, 2013, in Bucharest, Romania.

MSS Staff

Ranjani Ravi prepared research notes on trends in nuclear disarmament and the history of NATO cooperative security alliance, the World Court Project, International Courts, European Courts, international environmental judicial proceedings, cases involving nuclear weapons and nuclear energy

VII. EDUCATION

Early Childhood Education

In the mid-1990s, the Society began a research project to evaluate new educational methods developed in the USA by the Institute for the Development of Human Potential to accelerate early childhood learning of language, math and general knowledge skills. After sending several teams to study these educational methods, in the mid-1990s the Society sponsored establishment of an experimental school at Arasavanangadu, a village in rural Tamil Nadu, to test the application of these methods for teaching first-generation educated village children. This project has achieved dramatic results in accelerating the acquisition of both English and Tamil language reading and comprehension skills as well as a very broad range of general knowledge of first-generation educated 3-8 year old village children. Initial results indicate that children educated by these methods can acquire the mental knowledge and skills of a sixth standard rural education within the first two to three years. The success of the project received widespread attention after publication of an article in the Hindu by former Governor and Union Minister Mr. C. Subramaniam. The Society also developed a detailed plan for establishment of a teachers training institute to disseminate this approach which was submitted to all the state governments in India.

Farm Schools

In 1981, the Society evolved a novel strategy for improving the transfer of agricultural technology to farmers. The strategy calls for the establishment of a Farm School in each village on lands leased out from farmers. Classes are conducted for young farmers in the field and the students are paid for their field labour, so they can earn while they learn. The income from cultivation covers the entire cost of operating the school. The first farm school was established by E.I.D. Parry & Co. near their sugar factory at Nellikuppam, South Arcot District. One year classes in cane cultivation were introduced. In the very first year, the students obtained a yield of 56 tons per acre, nearly twice the average achieved by farmers in the district. In 2005, the National Farmers Commission of India, acting on the Society's recommendation, proposed establishment of 50,000 farm schools throughout the country to disseminate the latest technology to farmers.

Craftsman Training Institutes

In 1981, MSS submitted a proposal to the Indian Planning Commission for establishment of a national network of craftsman training institutes to complement the higher level vocational training institutions for industrial skills and engineering.

Development Education

In 1980, the Society presented a proposal to Dr. Maduri Shah, Chairman of the University Grants Commission, for introduction of courses in Development Education at the graduate and post-graduate level in Indian universities and colleges. The purpose of the courses was to impart a practical knowledge to the students about the development process taking place in the country and the opportunities for gainful self-employment as an alternative to salaried jobs.

A research project was undertaken to evolve the syllabus for both B.A. and M.A. level courses. On the suggestion of the UGC Chairman, copies of the B.A. course outline were circulated to the Vice-Chancellors of all Indian universities. About a dozen universities responded with serious interest. The first M.A. level course based on the Society's syllabus was introduced at Annamalai University in 1982 and was later extended to include M.Phil and Ph.D. as well. Lectures and reading materials were specially developed for the course. The course content was commended by officials of UNESCO in Paris.

In 1982, the Society organized a seminar on Development Education at Madras in collaboration with Annamalai University and the Institute for Development Education at Madras with a grant from the Indian Council for Social Science Research. The purpose of the seminar was to project the need for these courses and examine their relevance in several major areas – undergraduate and post-graduate social science, engineering, agriculture, journalism, management, and public administration. The main theme of the seminar was the need for a re-orientation of the educational system to solve the problem of educated unemployment by imparting to students knowledge of entrepreneurial opportunities and the motivation to avail of these opportunities.

Computerised Vocational Training Programme

The Society has formulated strategies for widespread application of computers as an instrument for vocational training and distance education. One strategy calls for establishment of a national network consisting of 50,000 private computerized vocational training institutes known as "Job Shops". Society staff conducted discussions with the Union Planning Commission and Government of Tamil Nadu as well as leading companies in the software industry including Microsoft, NIIT, Wipro and NASSCOM, which endorsed the strategy. The findings of this project were presented at the 8th National Conference on e-Governance in Chennai during November 2003.

Primrose School

Primrose School was established in 1999 in an urban area of Pondicherry to demonstrate the efficacy of the innovative methods of child education. The school develops and applies experimental approaches including the extensive use of computers for self-directed learning and techniques developed by American educationist Dr. Glenn Doman for early childhood learning. In recent years, the school has been widely recognized as the most advanced institution for school education in Pondicherry. Primrose is affiliated to Council for the Indian School Certificate Examinations (CISCE). In 2012, the educational programme at Primrose School was extended to include 14 levels from pre-kindergarten up to the twelfth standard. Future Education

In response to the rapid development of open on-line courses for higher education (MOOCs), MSS launched a major research project in 2013-14 on the future of global higher education and submitted its findings at an international conference on "Opportunities and Challenges for the 21st Century: Search for New Paradigm" held at the United Nations in Geneva on June 3, 2013. Following that conference, MSS prepared a proposal for establishing a new international NGO to promote new solutions in global higher education and presented the proposal to the World Academy of Art & Science.

The proposal was presented and discussed at a high level international conference organized by WAAS at the University of California at Berkeley on 2-3, October 2013 and endorsed by educators from leading US and foreign universities from five continents.

Following the Berkeley conference, WAAS and MSS prepared a detailed proposal for establishing the World University Consortium (WUC) and approached other leading international organizations to join as charter members. The first meeting of the Charter Members was conducted at the Library of Alexandria, Egypt on February 12-14, 2014. In addition to MSS, WAAS and the Library of Alexandria, other charter members include the International Association of University Presidents, the Inter-university Centre (Croatia), Foundation for a Culture of Peace (Spain), Green Cross International (Switzerland), Institute for Cultural Diplomacy (Germany), and Person-centered Approach Institute (Italy). In 2014 MSS staff made presentations on behalf of the Consortium at international conferences conducted in Alexandria, Baku, Moscow, Yokohama, Oxford, and Almaty, Kazakhstan. MSS staff also created a new website www.wunicon.org and began extensive research project covering more than 20 major aspects of higher education, including accessibility, affordability, quality, relevance, sustainability, employability, active learning, on-line learning, transdisciplinarity, creativity, leadership, original thinking, and values. A special issue of *Cadmus Journal* was published in October 2013 highlighting the need for this research initiative. An article on “Toward a New Paradigm in Education” appeared in the Spring 2014 issue of *Cadmus*. In addition, MSS launched an online survey of higher education courses to determine the primary factors considered by students in evaluating the quality of on-line courses.

MSS also continues its applied research program on early childhood education at Primrose School, Pondicherry.

Online Higher Education: World University Consortium (WUC)

MSS continued its active research collaboration with WUC on strategies for advancement of global higher education. During 2014-15, MSS designed, organized and participated in the delivery of three short courses at the Inter-University Centre (IUC) Dubrovnik, Croatia on Individuality and Accomplishment, Transdisciplinary Science of Society and Leadership (see below). MSS conducted a plenary session on The Coming Revolution in Higher Education and a workshop on Science, Spirituality and Consciousness at the Bio-Vision Conference at Library of Alexandria on April 7-9, 2014. MSS staff presented papers at the International Association of University Presidents’ annual conference in Yokohama, Japan in June 2014, at the Oxford Summit of Leaders, Oxford, UK on October 13-14, 2014, and at the Jawaharlal Nehru Rural University at New Delhi in November 2014. An article by MSS staff on “Toward a New Paradigm in Education” appeared in the Spring 2014 issue of *Cadmus*. In addition, MSS conducted an online survey of higher education courses to determine the primary factors considered by students in evaluating the quality of on-line courses. The survey was made possible by an advertising grant provided by Google. WAAS and WUC conducted a post-graduate level certificate level course on “Future Education” from September 21-23, 2015 at the InterUniversity Center, Dubrovnik, Croatia. MSS staff delivered lectures at the course. WAAS and WUC together with the Center for Complex Systems in Transition, Stellenbosch University, South Africa, conducted a workshop on “Transformative Future Education” in Davos, Switzerland in October 2015. The UNESCO Chair in Anticipatory

Systems, together with WAAS-World Academy of Art and Science, ISSS-International Society for the Systems Sciences, the Advanced Design Network, and the Department of Sociology and Social Sciences of the University of Trento, organized an international conference on “Anticipation” at the University of Trento, Italy. Garry Jacobs delivered a presentation titled “Education at Warp speed” at the conference.

During 2015-16, MSS staff participated in and presented at the WAAS and WUC organized webinar on Future Education on June 26, 2015. MSS also collaborated with WAAS and WUC to conduct a post-graduate level certificate level course on “Future Education” from September 21-23, 2015 at the Inter University Center, Dubrovnik, Croatia. MSS staff delivered lectures at the course. Following the conference, a report titled “Report on Future Education Symposium” by Janani Harish was published in Cadmus Journal in the October 2015 issue. Another paper by Janani Harish titled “Contextual Education” was also published in the same issue. MSS staff also participated in a workshop on “Transformative Future Education” at the World Environmental Forum at Davos, Switzerland in October 2015. Garry Jacobs chaired the workshop. On November 10th, 2015. WAAS and WUC convened a meeting in Geneva to summarize core findings of fifteen conferences and workshops conducted over the past four years and to identify the agenda for future work. Garry Jacobs presented MSS research findings on the theme “Mind and Creative thinking”. A PG level 3 day course on Mind, thinking and creativity was held at IUC Dubrovnik on April 12-15, 2016 in which MSS staff presented. A preparatory webinar preceding the conference was held in March 2016 in which MSS staff presented and provided admin support. The international Conference “Technology + Society =? Future” organized by the Montenegrin Academy of Sciences and Arts was held in May 2016 in which MSS staff participated and presented. MSS staff presented at the New Paradigm and Planetary Engagement: A Call for Responsibility conference held at Kyung Hee University in Seoul, South Korea in September 2016.

Ecological Education

A special session was conducted on the future of higher education at the 20th international conference organized in association with Green Cross International at the Gorbachev Foundation in Moscow on June 26-27, 2014. Garry Jacobs highlighted that there needs also to be a radical reorientation of higher education to attune it to the rapidly changing needs of the 21st century, most especially the demands for employability and ecological sustainability.

Future Of Education in the 21st Century

Rome Conference: MSS is collaborating with The World University Consortium (WUC), USA on a research project to evolve a new model for higher education that more effectively prepares youth for participation in the highly competitive work environment and increasingly complex social environment of the 21st century. The research involves development of methods to shift the emphasis from rote memorization to understanding and independent thinking, from abstract theory to contextualized knowledge, from passive to active pedagogy, from fragmented disciplinary to transdisciplinary perspectives, from competitive to cooperative learning environment, from repetitive to creative educational activities. MSS partnered with WUC, World Academy of Art & Science (WAAS), USA, and the Person-Centered Approach Institute, Italy to organise the second international conference on Future Education at the University of Rome on

November 16-18, 2017. The 300 participants included government officials from Italy and Romania, vice chancellors of leading universities, educators, business leaders, labor union representatives, faculty of many disciplines and a large contingent of students, including 23 representatives of Kyung Hee University, South Korea. Five members of the MSS research team presented papers at the conference.

Applied Research at Primrose School: The Society's Primrose School has been widely recognized as one of the most advanced institutions for childhood education in Pondicherry and one of the pioneers in early childhood education in India. During 2017-18, MSS continued its research on new teaching methods, teaching materials, and technologies. The expenditure for this project is met from internal generation.

Primrose Conference: On January 28, 2018, MSS conducted a national conference at Ananda Inn, Pondicherry on a new paradigm for school education in India in collaboration with WUC, Mind Mingle of New Delhi, Global Institute of Integral Management Studies of Kochi and Spell Bee International of Chennai. The 150 participants included the principals and academic directors of more than 50 schools in India. Speakers included 10 representatives of MSS and the Society's Primrose School teaching staff. The conference presented the latest international trends and methods for person-centered education and recommended new teaching methods to promote interactive, collaborative learning that emphasizes independent thinking, values, innovation and creativity.

Second International Congress on Nikola Tesla: MSS participated and presented a paper on the Future of Education at this international conference in Belgrade, Serbia conducted on June 2-3, 2017.

Workshop on the Future of the University: A research paper prepared by MSS was also presented at the International Transdisciplinary Conference 2017 conducted at Leuphana University, Luneburg, Germany on Sep 11-12, 2017.

MSS staff participated and presented at the conference titled "Educating for the future" organised by the Altius Society, UK. The conference, held in September 2018 at Oxford, explored topics such as the need for developing critical thinking and understanding in our contemporary societies; the future of educational institutions amid the rapid economic and social transformation enabled by technological disruption; the need to redefine human values and citizenship and the requirement of a new paradigm of national and global governance; and chiefly, the empowerment of the human mind.

Building on a breakthrough conference at the University of California, Berkeley, in 2013 and the Future Education Conference at the University of Roma TRE, in Rome, Italy, in November 2017, the World Academy of Art and Science (WAAS) and the World University Consortium (WUC) joined hands with the Ministry of Education of Brazil, UNESCO and Fundação and Faculdade CESGRANRIO to conduct the "Third International Conference on Future Education–Latin American Perspectives" to identify practical measures to meet the needs and aspirations of major stakeholders – youth, students, teachers, employers, workers, research institutions, universities, governments and civil society. The event was conducted on November 12-14, 2018 in Rio de Janeiro, Brazil, in which MSS staff participated and presented papers.

MSS staff participated and presented at the conference titled “Educating for the future” organised by the Altius Society, UK. The conference was held in September 2018 at Oxford.

On October 4-6, 2019, the 6th Altius Conference gathered eminent scientists, politicians, social thinkers and students at the Oxford Union under the title “Organizing Society for the 21st Century”. MSS staff participated in the event.

The 4th International Conference on Future Education was organized in Belgrade, Serbia from November 11-13, 2019. It examined effective strategies and policies required to accelerate a paradigm change in education. MSS staff presented at the conference.

The Society’s Primrose School has been widely recognized as one of the most advanced institutions for childhood education in Pondicherry and one of the pioneers in early childhood education in India. MSS staff have been conducting extensive research on the education system needed for the 21st century to meet the challenges the world today, with especial focus on evolving new methods of pedagogy. The current paradigm is more lecture-centric and teacher-oriented. MSS staff, through new pedagogical methods, have been exploring how the 21st century needs new ways of teaching in which the teacher is merely the facilitator and how education should become more student-centered. To achieve this, smartboards were installed in all classes at the school to aid students’ learning. MSS research staff have also been helping teachers in higher grades create flashcards.

Publications: Volume 2 Issue 4 of Eruditio Journal, an issue dedicated to papers presented at the International Conference on the future of education held in Rome in November 2018, featured 6 papers authored by MSS staff: “Introductory Report on the 2nd International Conference on Future Education” by Garry Jacobs and Alberto Zuconi, “Insights on Creativity” and “Beauty of Mathematics and Overcoming the Agony of Maths Education” by Vani Senthil, “Essence of Educational Inspiration” by Vidya Rangan, “Education is a Civilising Experience” by Ashok Natarajan and “Online and Hybrid Learning” by Janani Harish.

Applied Educational Research

The Society continued research and training on new methods, techniques and materials for early childhood and school education and testing them at Primrose School.

Come On!: Report To The Club Of Rome

MSS staff contributed a chapter on Education for the Club of Rome’s recent report titled Come on! that aims for a new paradigm in education by urging business, civil society organizations, universities and other socially responsible individuals to get involved in creating a much-needed momentum for bringing about a major rethinking of the current education system. The report, published in January 2018 by the Club’s co-presidents Ernst von Weizsacker and Anders Wijkman, calls for a major paradigm shift needed in the field; he argues that a 21st century system that follows the 19th century education system is not just unsustainable, it results in major underutilization of human capital. A shift is needed from passive to active learning, from memorization to critical thinking,

from processing information to seeking lifelong education, from seeking a degree to gaining knowledge, from social conformity to mental individuality.

VIII. MANAGEMENT

Principles of Business Management

In 1974, the Society prepared a paper outlining a new perspective on business management derived from the teachings of Sri Aurobindo and The Mother and tested on the Society's agricultural project and in a US corporation. Copies of the paper were submitted to more than 90 management institutes around the world and two articles were published by management journals in India.

Application of the Principles in Indian Companies

In 1975, the new approach was applied to analyze management problems at Neyveli Lignite Corporation, when the Superintendent of the Thermal Power Station requested assistance. The Society's recommendations were implemented and the problems were resolved.

In 1982, a study was undertaken of management problems at E.I.D. Parry & Co's sugar factory at Nellikuppam. The study focused on the need to improve the rapport between the factory and the cane growers and between management and labour.

In 1987, the Society undertook management studies of Bajaj Auto Ltd. in Pune, one of India's fastest growing and most profitable manufacturing corporations, and First Leasing Company of India Ltd., the first industrial leasing corporation in the country and one of India's fastest growing and most profitable service corporations, in order to identify the factors responsible for their rapid growth and to recommend solutions to problems incurred during external expansion. This study concluded that the factors responsible for stimulating and retarding the growth of service companies and manufacturing companies are quite similar and that Indian corporations face growth problems similar to those encountered by companies in the USA and Europe. Specific recommendations were prepared for improving productivity, profitability and organisational efficiency in both companies.

Study of Chrysler Corporation

When Chrysler Motors, USA was on the verge of bankruptcy in 1979, the Society conducted a study to assess the root causes of the company's crisis and the chances of its survival. Contrary to the view of most management experts, the Society concluded that Chrysler could survive the present crisis and emerge stronger than ever before. A report analyzing Chrysler's problems and a list of recommendations were submitted to the Chairman of Chrysler Corporation, Lee Iacocca.

Study of a Dutch Chemical Company

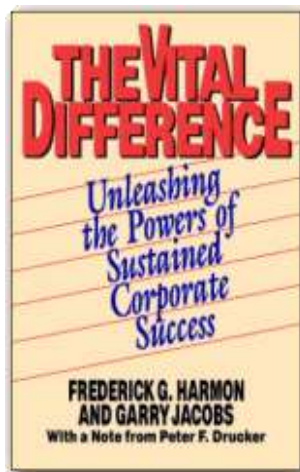
In 1983, the Society was invited to study the management problems of Rhone Poulenc Nederlands b.v., the \$80 million Dutch subsidiary of a multi-national French Chemical and Pharmaceutical company. Researchers interviewed 33 staff members of the company

and undertook a detailed examination of organizational functioning, market trends, growth potentials, marketing techniques and operating systems. Recommendations were made for improving performance at the institutional, organizational and operational levels.

Study of Highly Successful American Corporations

During 1984, a study of highly successful American companies was conducted in collaboration with Frederick Harmon, Vice-President of American Management Association in New York. The aim of the study was to test the validity of the Society's theory describing the process of corporate development. The study involved on-sight interviews with over 100 employees of major American companies including Apple Computers, AT & T, Coca Cola, Delta Airlines, Dupont, General Mills, IBM, Marriott Hotels, Merck Pharmaceuticals, Northwestern Mutual Life Insurance and Sears Roebuck.

The principles and process developed by the Society and the findings of the study were published in the US as a book entitled *The Vital Difference: Unleashing the Powers of Sustained Corporate Success*, authored by Fred Harmon and MSS staff Garry Jacobs. The book was commended by leading management experts like Dr. Peter Drucker, Dr. Tom Peters, and Dr. L.K. Jha.



The Vital Difference - Unleashing the Powers of Sustained Corporate Success by Fred Harmon and Garry Jacobs, Amacom Publications, NY, 1985. There is an inexhaustible potential within the organization. It is inexhaustible because the more it is drawn from, the greater it grows. The more enthusiastically it is tapped, the more it increases at its source. The more it is enjoyed, the more it expands. Those who have used this potential to unleash the powers of sustained corporate success have learned how to make a vital difference, in their lives and in the lives of their organizations. The first qualification is to want it. The more you want it, the more you grow. The more conscious you become of it, the more it beckons you to further growth. That is the essential message of

this book. For those who seek the ultimate boon of endless corporate expansion, the authors invite you to that great adventure and to share their glimpse of a vision of the process. For those who seek a more limited boon like doubling your profits or sales, the book presents specific strategies for achieving your goal.

A series of 8 one-day and 3 two-day seminars were organized in the USA, Canada and Europe by the American Management Association to present these ideas to top executives of major Western corporations. Articles written by the Society were published by three management journals in the USA -- *Management Review* (Nov. 85), *Supervisory Management* (Nov. 85) and *The President's Newsletter* (Sept. 85).

Study of Successful European & American Companies

The findings reported in the study of American companies generated considerable interest in Europe. Management Centre Europe, a division of A.M.A. International headquartered in Europe, invited the Society to collaborate on a research program to

determine how far the model and findings of the U.S. study were relevant to successful European corporations. The European project involved in-depth interviews with 8 leading companies including Minit International and Sandoz Chemicals of Switzerland, Blackwell Publishers and London Life Insurance of U.K., Chargeurs S.A. of Paris, Den Dansk Bank, East Asiatic Co. and the Jutland Morning Newspaper of Denmark.

In addition to the interviews, a survey questionnaire prepared by the Society was administered by mail to 1500 major European firms in 10 countries, out of which 150 responded. The questionnaire was designed to test key aspects of the model in a much larger sample of companies with diverse cultural backgrounds.

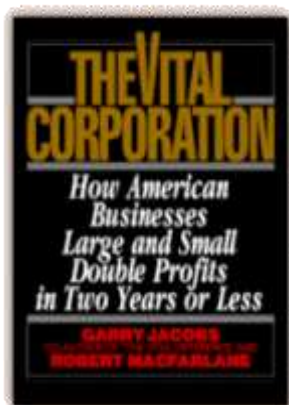
Results from both the interviewed and surveyed European companies closely conformed to the pattern observed in the U.S. They confirmed the existence of a fundamental process and principles of organisational development which transcend social, economic and even cultural boundaries.

The results of the European study were published by Management Centre Europe. Articles prepared by the Society were also published by several European management journals – the *International Management Development Review* (Jan. '86), *Profile* (June '86), *Chief Executive* (June '86), *European Management Review* (summer '86), and *International Management* (June '86).

Subsequently, a similar survey of 770 US corporations was conducted in association with the President's Association, a division of American Management Association.

Management Study of Rapidly Growing Corporations

The Society conducted a study of fast growing companies in India, Europe and USA to identify the common factors responsible for their rapid growth, to compare these factors with those responsible for the growth of major corporations in The Vital Difference and to evolve management strategies applicable to other companies in India and overseas. The results of the study have been published in the U.S. as a book entitled *The Vital Corporation* by Garry Jacobs and Robert Macfarlane.



The Vital Corporation - How American Businesses Large and Small Double Profits in Two Years or Less by Garry Jacobs and Robert Macfarlane, Prentice Hall, NY, 1987

This is a book about the process of corporate growth—what makes it happen, what makes it stop, and how it can be accelerated in any company to dramatically increase revenues and profits within a very short period of time. The Vital Corporation illustrates this process with inspiring examples of companies of all sizes drawn from a wide range of industries, which have utilized the process to double or even triple their profits. The Vital Corporation also contains specific strategies

for applying these principles, plus a series of detailed exercises to assist you in making the ideas in this book as real and as relevant as possible.

Study of Specialty Electronic Retailers in the USA

The Society presented the findings of its study to 200 member companies of the Professional Audio Video Retailers Association in the USA at a three day seminar held in April 1987 in Acapulco, Mexico. The study identified the factors responsible for the success and failure of these companies and recommended strategies to accelerate their growth in future. The Society was invited back to present recommendations at PARA conferences at San Diego, California in 1988 and at Phoenix, Arizona in 1993.

From 1996 to 1998, the Society conducted a series of in-depth studies of the retail electronics industry in the USA to identify the technological, organizational, distribution, management and financial factors that influence development of the market segment. These studies were undertaken in collaboration with the Professional Audio Video Retailers Association of North America (PARA). The findings were presented by Society staff at two annual conferences of association members in April 1997 and April 1998. The society has also worked closely with the association to identify strategies to accelerate the growth of the entire industry through closer collaboration between association members. Additional studies and conferences were organized from 1999 to 2003.

Over the past decade, the Society has conducted extensive studies on the process of corporate growth. These studies document that there is a close parallel between the process of social development and the process of corporate development. In fact, the process in both cases is the same. In recent years, the Society has been conducting field tests of its theoretical concepts to determine whether the theory can be practically applied to improve the performance of businesses in different industries, both within India and overseas.

In 2003-04, staff of the Society developed a detailed manual for application of management principles in this industry and to present its approach at a national conference of the association in March 2004.

Study of the Tool & Die Industry in the USA

The Society completed its two year study of the Tool & Die Industry in the USA and presented its findings at two five-day conferences organized by the National Tooling and Machining Association in January 1988 and January 1989. The study involved in-depth interviews with 30 companies in the industry and identified opportunities and strategies for the growth and improved profitability of companies in this industry.

Rapid developments in manufacturing technology, the globalization of markets, downsizing and consolidation by major corporations and increasing demands for quality have a profound impact on basic manufacturing companies in the USA and internationally. In 1998, the Society conducted a study in collaboration with the National Tooling and Machining Association, an association with 2400 member companies, to identify the factors shaping the development of this industry and to identify strategies that will enable progressive companies to respond effectively to the challenges that the rapid change is posing to business. The study, which included interviews with over 40 member companies of the Association, involved a detailed analysis of economic and commercial trends at the international, national and industry level. The results of the

study were published by the Association and presented at a national conference in San Diego in January 1999.

A seminar was also conducted at the Fall 1999 conference of the National Tooling and Machining Association along with several regional conferences with local manufacturing associations in various parts of USA.

In 2000-01, the Society conducted a study of the impact of globalization on the special machining industry. In May 2001, a conference was conducted by Society staff for about two hundred member companies of the International Special Machining & Tooling Association in Chicago.

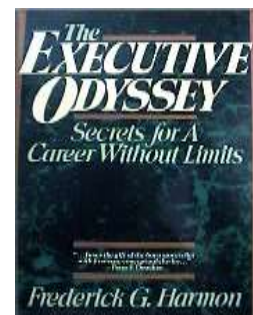
The Society was requested to conduct further research work for NTMA in 2004-05 on strategies for leadership in manufacturing in the emerging global marketplace. The findings of this study were presented at two three-day national conferences in St. Petersburg, Florida and Couer de Alene, Idaho in February and September 2005 on the theme of leadership in manufacturing. The first seminar examined the impact of global trends in areas such as marketing, technology, organization of production and sourcing, trade and labor and projected their future impact on this industry. The second seminar focused on personal leadership strategies for sustained growth in a rapidly globalizing market.

Management Study of an International Shipping Company

This study, which began in 1988, involved a survey of over 200 managers of the Dutch shipping company Nedlloyd Lines and the conducting of interviews and workshops in their offices in Netherlands, Germany, U.K., Hong Kong, Brazil, Japan and the USA. Four seminars were conducted in Holland, Atlanta and Singapore during Spring 1989 to present the findings of the study to corporate executives of Nedlloyd.

Study of Successful Business Executives

In 1989, the Society staff conducted discussions with Frederick G. Harmon that led to publication of *The Executive Odyssey: Secrets for a Career without Limits* by Wiley Books in USA. The book examines the careers of highly successful CEOs and identifies the common factors responsible for their success.



Study of Corporate Values

In 1996, the Society participated in discussions with Frederick G. Harmon which led to the publication of *Playing for Keeps: How the World's Most Aggressive and Admired Companies use Core Values to manage, Energise and Organize their People, and Promote, Advance and Achieve their Corporate Missions*. The book presents a step-by-step analysis of the process of value implementation by leading American corporations.



Trends in the World Newspaper Industry

In 2000, the Society undertook a study of international trends in the newspaper industry in India and around the world. Emphasis was placed on the role of newspapers in reporting changes in Indian society and how they could become effective instruments to accelerate social development by reporting changes in social activities, attitudes and values. The findings of the study were presented and discussed with senior editors from the New Indian Express, one of South India's leading newspaper companies.

Study of Growth Companies

From 1996 to 2000, Society researchers conducted a series of four studies in collaboration with Minnesota Technology Inc., a government development agency in Minnesota, USA responsible for stimulating the development of manufacturing companies in the state. The studies examined the development and functioning of three rural-based manufacturing companies in the electronics, textiles and boating industries. Further studies are now being conducted in several companies in South India.

Staff of the Society have continued to test its theoretical approach to business development. A project was undertaken from 2000 to 2005 to apply and test these principles to improve the organizational functioning and financial performance of The New Indian Express Group, publisher of leading newspapers in the five southern states of India. Three Society staff were engaged in this project.

Business 2010

In 2000, the Society conducted extensive research on emerging trends in different sectors of the US and global economy for a study conducted by Frederick G. Harmon on behalf of the Kiplinger Organization, USA. The findings of the study were published as a book in the USA entitled *Business 2010*.

Role of Value Implementation in Business Success

The Society studied the role of values and methods of value implementation in the growth and success of businesses with a study of values in an entrepreneurial Dutch company. The study found that values such as quality, customer service, integrity and commitment to its people played a crucial role in generating a competitive advantage for the firm leading to its rapid expansion. Based on this study, the project leader, Robert van Harten, was awarded an MBA degree by a Dutch University.

Seminars on Management Consulting

In 2004, the Society conducted a 12 week training programme in Chennai for graduates on the theory and practice of management consulting in collaboration with Career Development Foundation of India, associate partners of Cambridge University International, UK.

Seminars on the Psychology of Personal Accomplishment

In July and August 2004, the Society prepared a one day seminar on the psychology of personal accomplishment and conducted five training programmes for marketing

executives of a leading South Indian newspaper in Hyderabad, Kerala, Bhubaneswar, Calcutta and New Delhi.

Study of Cultural Integration in a European Ship-building Company

In May-September 2006, the Society conducted onsite research relating to the merger of Aker Shipyards, a Finnish manufacturer of large cruise ships, and Chantiers de Atlantique, a French shipbuilding company which combined into a single concern the previous year. The study included interviews with approximately 15 senior executives of both companies, tour of their facilities in Saint Nazaire, France, Turku and Helsinki, Finland. Society staff participated in three seminars for the companies in May, July and September focusing on strategies to overcome the cultural differences that impair communication and coordination between the two companies.

Study of Fast Growing Italian Patent Protection Company

In September 2006, a Society staff member was deputed to conduct interviews with the staff of Sisvel Audiompeg, a fast growing Italian-American company involved in enforcing patent rights on mpeg audio technologies. We conducted a two day seminar for senior staff of the company in Berlin to present strategies to cope with the company's very rapid growth in revenues over the past few years.

Management Study of Aura

In 2007, the Society commenced a new research project with a Chennai-based event management company, Aura. The objective of the project was to apply the Society's theory of business management to identify strategies to accelerate growth and profitability of the company. The Society presented a two day training program to Aura staff.

Management Theory

For the past three decades, the Society has been working to evolve a new theory of business management based on the process of creation described by Sri Aurobindo. The findings of this research have already been published as five management books and number articles in the USA. Over the past three years, the Society has continued its original research on this project and generated a number of articles, working papers and detailed research notes. Good to Great by American business expert Jim Collins has become a leading international best-seller, seeks to identify the essential characteristics of major corporations that consistently outperform their competitors over long periods of time. In 2006, the Society undertook a comparative study and analysis of the factors identified by the Collins team and assessed their findings in the light of its own theoretical approach to sustained business success. The increasing frequency of mergers and acquisitions in international business today has focused attention on the challenge of how to combine and integrate previously independent companies in such a manner as to achieve maximum efficiency and financial performance. In April 2006, the Society began a study of the concept and practice of integration in business based on its earlier theoretical work. The Society's theoretical approach is to view a company as a living organism and to compare integration of a business with the complex integration achieved by the human body in interlinking all its biological functions, systems and organs. While

complete integration in a social organization appears unattainable, the scope for increasing the level of integration is enormous. Each of the five components of a company – market, technology, people, finance and organization – can be further subdivided into 20 subcomponents and each of these 100 subcomponents can be fine-tuned to harmonize its operations with that of all the others.

E-learning Systems for Selling Skills

The growth of the world economy has generated millions of new jobs for people selling products and services, such as retail products, manufactured goods, financial and other services. Selling is an essential vocational skill for development of a modern economy, yet there are few formal training programs to equip sales people with the knowledge and skill needed for success in this vocation. In 2010, MSS completed the first phase development of a web-based e-learning system for sales people in different industries. A complete ten lesson course has been designed during the year. The beta site was launched in September 2010 and is presently undergoing testing and revisions. A website www.tenfoldsales.com was launched to the general public.

Leadership

MSS collaborated with the World Academy of Art and Science and the World University Consortium for a post-graduate level course on Leadership in March 2015. The course, titled “Essence of effective Leadership”, explored the characteristics common to leaders in business, politics, civil society, science, arts, professions and education and examined methods by which these characteristics can be consciously developed by individuals. Apart from the presentations, the faculty interacted with offline and online participants to bring out the theoretical significance and practical relevance of the material. Janani Harish’s paper “Leadership for a New Paradigm in Human Development” has been accepted for publication in the May 2015 issue of Cadmus Journal. In 2015-16, MSS began collaborating with Global Institute for Integral Management Studies, Kochi, Kerala to develop a new curriculum for teaching principles of business management. MSS staff have been conducting training for GIIMS faculty members and delivering lectures to students.

Business Management

The Society continued to conduct research on the process of entrepreneurship and business success with a study of Elon Musk, founder of Tesla Motors, Solar City and X-Space to identify the social, psychological, technological and organization factors responsible for their success. MSS presented a series of lectures based on its research findings to a group of 70 Indian entrepreneurs at a conference organized by the London College of Business & Finance, Kochi, on November 22-23, 2014 on “Building Sustained High Performance and Success”. MSS was invited to conduct a workshop for business executives at the annual conference of the European Foundation of New Ideas conducted in Sopot, Poland on September 28, 2016. About 1000 business leaders, government officials and educators attended the conference. MSS was also again invited to address the Kiev International Economics Forum in Ukraine to present recommendations on how the nation could accelerate economic reform and business development.

The Society continued to conduct research on the process of entrepreneurship and business success with a study to identify the social, psychological, technological and organizational factors responsible for their success.

GIIMS: MSS is collaborating with the Global Institute for Integral Management Studies at Kochi on development of curriculum for MBA level courses and employment oriented courses in logistics and supply chain-management. MSS staff are providing guidance to GIIMS on curriculum development, shifts to a student-centered pedagogy and organizational development.

Tel Aviv Conference: MSS also presented a research paper on “Consciousness Approach to Business” for presentation at an international conference at Tel Aviv University in Sep 2017 organized in collaboration with the European Spirituality in Economics and Science (SPES) Institute.

Kiev International Economic Forum: The KIEF conference is an annual event conducted in Kiev, Ukraine on Oct 5-6, 2017. Participants included economists, government officials and business leaders from Ukraine and other countries. MSS was invited for the third successive year to participate in the KIEF conference and speak on a panel of expert on economic policy for rapid transition.

A research paper prepared by MSS staff on “Consciousness Responsibility” has been accepted for inclusion in a new book to be published by Palgrave Europe.

In 2018-19, MSS continued research on development of a transdisciplinary course on leadership. MSS staff have been researching on the process of entrepreneurship and business success to identify the social, psychological, technological and organization factors responsible for their success. MSS will continue collaborating with the Global Institute for Integral Management Studies, Kochi, Kerala to develop a new curriculum for teaching principles of business management. MSS staff will continue to conduct training programs for GIIMS faculty and for Sainath Technologies, an environmental protection firm.

MSS staff was invited to deliver a two week MBA level credit course on Organizational Theory at Caucasus University, Georgia in November-December 2018. This course examined the fundamental principles, vital processes and effective power of organization applicable to all fields of activity with emphasis on business and economy and all levels of life from the individual enterprise to the economy, society and global community. It drew on cases studies from business, history, biography and literature to explore the sources of the energy, efficiency, power, innovation and creativity that enable organizations to multiply results and self-multiply themselves. It was designed to help students from different backgrounds, disciplines and levels of experience understand the principles and process of growth, innovation and creativity that govern all human activities.

The World Academy of Art and Science, in collaboration with the Club of Rome, organised a two day roundtable on March 21-22, 2019 at the Inter University Center, Dubrovnik, Italy, on “Emerging New Civilization Initiative,” a meeting of concerned and committed individuals and organizations to share insights and explore pathways to a new civilization initiative that recognizes the systemic interconnectedness of people, nations, sectors, activities, challenges, forces and consequences presiding over global

development and seeks solutions and processes that transcend the limitations of the current paradigm and giving shape to pathways toward a better future for humanity. MSS staff participated in the event.

MSS staff will also teach post-graduate MBA students at the Caucasus University, Georgia, a 32-hour course spread over 11 sessions from May 2020-July 2020 on the Theory of Organization. MSS staff will be involved.

IX. NEW PARADIGM

Trans-disciplinary Science of Society

In September 2014 MSS collaborated with WAAS and WUC to conduct a post-graduate certificate course at Inter-University Centre, Dubrovnik exploring the prospects for development of a comprehensive trans-disciplinary science of society. The course involved nine faculty from MSS, WAAS and Club of Rome and was broadcast live on the web for international viewing. This course is intended as a creative endeavor to look beyond the boundaries fixed by present concepts, theories and disciplines in an effort to make more explicit the linkages and interdependencies between different fields of social activity, to develop common terminology, to identify common underlying social processes applicable to all fields and levels of society, and to examine the prospects and requirements for evolving a trans-disciplinary science of society. The course examines the common principles applicable to an integrated science of society; similarities and differences between the natural and social sciences; including the character of scientific laws, the place of consciousness and choice; the role of the individual human being as creator, catalyst and pioneer of social change; the need for an expanded concept of causality that takes into account the role of future anticipation as an attractor; and the applicability and limitations of systems, networks and complexity theory when applied to human beings. MSS co-authored an article presenting insights from the course in “Unification in Social Sciences: Search for a Science of Society” (*Cadmus*, Oct 2014).

The New Paradigm

MSS continued its collaboration with the World Academy of Art & Science (WAAS) and the World University Consortium (WUC) on a project to examine the root causes of the multiple challenges facing humanity today in order to formulate an integrated perspective, a comprehensive strategy and detailed policy framework attuned to the realities, needs and emerging opportunities of the 21st century. The project seeks to explore the linkages and interdependencies between issues related to economy, employment, ecology, education, global governance, rule of law, international security, social stability and human welfare. An international conference was organized in collaboration with WAAS and the NizamiGanjavi International Center in Azerbaijan at Baku on April 30, 2014 entitled “New Paradigm for Human Development”. Participants included 30 leaders from 10 international organizations. Another international conference was conducted at Almaty, Kazakhstan on November 5-7, 2014 in collaboration with WAAS, WUC and the Al-Farabi Kazakh National University on New paradigm of Sustainable Human Development with more than 350 participants. The keynote address was delivered by K. J. Tokayev, Chairman of the Senate of Kazakhstan and former Director General of the UN in Geneva. MSS staff conducted research and

made presentations in all these conferences. The society's work during the year included preparation of a 150 page draft report integrating different aspects of the new paradigm research which was presented and discussed at a working group meeting in Podgorica, Montenegro on March 27-28, 2015. Article by MSS staff was published in *Cadmus Journal* entitled "New Paradigm: The Necessity and the Opportunity" (in May 2014). Two more articles were published in the May 2015 issue of the journal titled "Is the World Floundering or Has She a Vision?" and "Uncorking the Future: Transitions to a New Paradigm". The XII International Colloquium took place in Gainesville, Florida, USA at the Levin College of Law at the University of Florida, from May 20-22, 2015. On November 10, 2015 WAAS and WUC convened a meeting in CERN, Geneva focusing on paradigm shifts.

The XIII International Colloquium held in Lisbon on May 11-13, 2016, explored the eco-social and political transitions and their consequences. The conference called for a new paradigm in eco-social, political transitions. MSS participated in an international conference organized by WAAS and Kyung Hee University, Seoul, titled "New Paradigm and Planetary Engagement" in September 2016. MSS also conducted research and participated in the conference on the impact of technological advances on employment conducted at Podgorica, Montenegro in May 2016. MSS staff participated and presented at a 3 day PG level course on Social Power in from October 31-November 2, 2016 at IUC Dubrovnik. Garry Jacobs co-chaired a session on the need for human-centered economic theory and also presented at the conference. WAAS and WUC convened a gathering of the New Economic Theory Working Group of which MSS is a member for a lecture series on new perspectives in Economics to call for a new paradigm in economics held at IUC Dubrovnik, Croatia, from January 31-February 3, 2017.

MSS continued its research on the root causes of the multiple challenges facing humanity today in order to formulate an integrated perspective, a comprehensive strategy and detailed policy framework attuned to the realities, needs and emerging opportunities of the 21st century.

Conference on Globalism and Nationalism: MSS participated in an international conference on Globalism and Nationalism organized by the Montenegrin Academy of Sciences and Arts and the World Academy of Art and Science in Podgorica on November 2-3, 2017.

Conference on Anticipation: MSS staff prepared and presented a research paper at the International Conference on Anticipation, Agency and Complexity organized by the University of Trento in Trento, Italy from 6 to 8 April 2017. Among the fifty participants were various prominent personalities of academia, business sector and international institutions. MSS presented a paper on "Anticipation, Transdisciplinary Social Theory and Integrated Thinking".

Conference on New Paradigm in Politics and Economics: MSS delivered an address on New Paradigm in Politics and Economics at a conference organized by the Laszlo Institute for New Paradigm Research in Italy in May 2017.

Publications: After the conference the Society was invited to contribute a chapter to a book presenting the major findings of the conference. The Handbook of New Paradigm

Research was published in Europe in August 2017 incorporating our research paper on the science of life.

Theory of The Firm

MSS Staff contributed a chapter titled “Transdisciplinary social theory of the firm” for a book on the Theory of the firm in January 2020. It examines the theory of the firm from the perspective of society and looks for a theory that is consistent with the fundamental principles of social reality. It views the firm from the perspective of an integrated transdisciplinary science of society. It examines the relationship between the individual firm, business community and the wider society, and considers the concept of value from the perspective of its social impact and overall benefit to human wellbeing. The book is yet to be published.

X. WORLD ACADEMY OF ART & SCIENCE

The World Academy of Art and Science was established in 1960 as a non-official network of individual Fellows from diverse cultures, nationalities, and intellectual disciplines, “chosen for eminence in art, the natural and social sciences, and the humanities. Its activities focus on “the social consequences and policy implications of knowledge.” The Academy serves as a forum for reflective scientists, artists, and scholars to discuss the vital problems of humankind independent of political boundaries or limits, whether spiritual or physical -- a forum where these problems can be discussed objectively, scientifically, globally, and free from vested interests or regional attachments.

In 1992, MSS began a series of discussions with Carl Goran Heden and Harlan Cleveland, the former and then present Presidents of WAAS, to explore areas of common interest. Mr. Cleveland participated in the final meeting of the International Commission on Peace & Food in 1993 and contributed ideas for ICPF’s report, Uncommon Opportunities. The report was released by Mr. Cleveland at WAAS’s General Assembly in Minneapolis in October 1994. Over the past fifteen years, MSS has collaborated with WAAS on a number of conferences and research projects.

In 2012, MSS Vice President Garry Jacobs was elected Chairman of the Board and CEO of WAAS, MSS was recognized as an official international center of the Academy, and the secretariat of the Academy was formally shifted to Pondicherry.

Future of Science

MSS co-sponsored a special half-day session on, New Foundations of Knowledge for Science immediately following WAAS’ 1994 General Assembly. More than fifty WAAS Fellows participated in the meeting and a follow-up session was organized by WAAS in 1995 under the leadership of Dr. Jonas Salk.

Development Theory

In 1998 Harlan Cleveland collaborated with researchers at MSS to prepare a book on development theory which was subsequently published by WAAS as Human Choice:

The Genetic Code for Social Development. A special session co-chaired by Harlan Cleveland and Garry Jacobs was conducted at WAAS' Vancouver General Assembly in 1998. MSS also chaired a workshop on Economic Development at the GA and presented a discussion paper entitled Economic Development in the Global Century. In summer 1999, MSS and WAAS co-sponsored a workshop on Development Theory in Washington DC and in fall of the same year MSS and WAAS conducted an international symposium on Development Theory at Chennai, India.

In 2008 the Society undertook research on the relationship between economic development and environmental sustainability. The findings of this research project were completed by mid-year and presented at an international conference organized by the World Academy of Art & Science at Hyderabad.

Peace & Global Development

In November 2004 WAAS and MSS were co-sponsors of an international symposium on peace and development convened in New Delhi to examine the relevance in today's world of recommendations contained in the report of the International Commission on Peace & Food, Uncommon Opportunities: Agenda for Peace & Equitable Development, which was submitted to the UN in 1994. The conference was inaugurated by Dr. A.P.J. Abdul Kalam, President of India. The keynote address was delivered by Mr. Natwar Singh, Minister of External Affairs. The meeting was convened in collaboration with the International Centre for Peace & Development (USA), the M.S. Swaminathan Research Foundation (India), the National Farmers Commission (Government of India), and the UN World Food Program. The conference explored the inextricable mutual interdependence between peace, social stability, democracy, employment and food security.

In September 2005, WAAS and MSS convened a workshop on nuclear disarmament in Washington DC. Robert McNamara, former President of World Bank and US Defence Secretary, participated together with Fellows of WAAS and three staff members of MSS.

In November 2005, MSS co-sponsored the World Academy's General Assembly in Zagreb, Croatia. MSS co-chaired and presented papers at a plenary session on Global Employment in a Knowledge Society, and in two workshops on Money and Rising Expectations.

In July 2006, MSS presented a paper at a WAAS workshop on Elimination of Nuclear Weapons at the annual conference of World Future Society in Toronto.

In October 2006, MSS sponsored a WAAS workshop on Nuclear Disarmament in New York City in collaboration with the Global Security Institute and Middle Powers Initiative.

In April 2007, MSS participated in a workshop conducted by the South East Asian Division of the World Academy of Art & Science in Zagreb, Croatia on strategies to promote employment generation in SEE countries.

Indian Prime Minister, Manmohan Singh, inaugurated an international conference in New Delhi on June 9-10, 2008 to mark the 20th anniversary of Prime Minister Rajiv

Gandhi's historic speech to the United Nations calling for complete nuclear disarmament. The conference was organized by WAAS Fellow Jasjit Singh, head of the Centre for Strategic and International Studies, and sponsored by the Ministry of External Affairs of the Government of India. Other keynote speakers included India's President, Pranab Mukherjee; the Vice President of India, Mohamad Hamid Ansari; Minister Mani Shankar Iyer; Canadian Senator Douglas Roche; Australian Ambassador Richard Butler; senior Indian diplomats and military officers; as well as Fellows Jonathan Granoff of Global Security Institute (USA) and Garry Jacobs of the Society.

On February 7-8, 2011 the Center for Air Power Strategy, New Delhi and WAAS conducted a two day international symposium in New Delhi on strategies to abolish nuclear weapons. The meeting included delegates from USA, Europe and India. Garry Jacobs presented a paper during the conference representing the Society.

WAAS organised an international conference along with The European Leadership Network and Inter-University Center at Dubrovnik, Croatia on September 14-16, 2012, which was sponsored by The North Atlantic Treaty Organisation. Garry Jacobs participated in the conference as a speaker, representing the Society.

Role of the Individual in Social Evolution

In recent years, Individuality has emerged as a pre-eminent social value and driving force for change. Human rights, democratic participation, universal education, economic opportunity, social tolerance, freedom of thought and expression, individual innovation and inventiveness are the dominant levers for human progress. The leader, innovator, entrepreneur and the pioneer are social expressions of this phenomenon. The original thinker, inventor and creative artist are mental expressions. Current trends indicate that individuality will play an even greater role in the future. MSS is undertaking research to determine precisely what individuality is, how it is constituted and developed by the collective, and by what process the individual acts on the collective and creatively enriches it. A global e-Conference was launched in Feb 2010, in collaboration with the World Academy of Art & Science.

In 2008, MSS collaborated with the World Academy of Art & Science to organize and conduct four sessions at the General Assembly of the Academy in Hyderabad on October 17-19. MSS chaired a plenary session on Development and Environment, which included two presentations by Society staff. MSS also organized sessions on the Global Financial Crisis, Development Theory and Limits to Rationality.

MSS continued its major research project on the role of Individuality in Human Accomplishment and Social Development. Research focused on examples of outstanding individuals in history, literature and biography. Research explored the sources, expressions, determinants and consequences of the creation, distribution and exercise of social power in its various expressions in politics, economy, society and culture and its consequences for the evolution of society as a whole.

Publications: "The Significant Individual, Values and Social Evolution: How one man changed the world" by Janani Ramanathan and Garry Jacobs was published in Volume 3 Issue 5 of Cadmus Journal.

The Power of Mind

“The Power of Mind” was the theme of the Club of Rome annual conference which concluded in October 2012 in Bucharest. That theme was of immense relevance to addressing the multiple crises that afflict humanity today. The essential message of the conference was that solutions do exist to the problems confronting humanity today, but those problems necessitate fundamental changes in the way we think about global society, public policy and humanity’s future. Garry Jacobs, representing the Society, presented during the conference on “Towards a New Economy” on October 2012. Enough time and energy have already been spent defining and quantifying the global problematique of persistent hunger and endemic poverty, rising unemployment and growing inequalities, resource depletion and environmental damage, financial instability and soaring public debt, growing insecurity, cultural tensions and social unrest both domestically and internationally. Business as usual, more of the same, simply will not do. We need a radical change of course. Mind has the power to formulate effective solutions, if it consents to cast off the blinding constraints of conventional wisdom and vested interests.

Mind, Thinking and Creativity

PG Roundtable Seminar: MSS continued its study of Sri Aurobindo’s conception of the nature of the human mind, thinking and creativity. The Society is collaborating with WAAS and WUC to create a comprehensive outline for a book and an online course on this subject. The research involves identifying different systems of thinking, the nature of the human Mind and its evolution, the limits to thinking and rationality etc. MSS also collaborated with WAAS, WUC, Dag Hammarskjöld University College for International Relations and Diplomacy (Croatia), and Person-Centered Approach Institute (Italy) to conduct a PG level seminar on Mind, Thinking & Creativity at the Inter-University Center in Dubrovnik, Croatia on November 6-8, 2017. The Dubrovnik roundtable confirmed the self-evident truth that creativity is not merely an act of genius or luck. It is a process, a process that can be learned. The meeting explored many of the mental processes that lead to the discovery of new relationships, unperceived opportunities and untapped potentials. It concluded with a core set of recommendations on how these insights can be applied in classrooms and findings were presented the following week at the 2nd International Conference on Future Education at Rome. Participants in the roundtable included six members of the MSS research team.

International Workshop: MSS also conducted a workshop on this theme at the Second International Tesla Conference in Belgrade, Serbia on June 2-3, 2017.

Publication: Ashok Natarajan’s paper “Human attitudes that prevent the advance of human progress and civilization” was published in the October 2017 issue of Cadmus Journal.

MSS is collaborating with WAAS-WUC to create a comprehensive outline on Mind. The research involves identifying different systems of thinking, the nature of the human Mind and its evolution, the limits to thinking and rationality etc. MSS staff will continue research on the nature and evolution of mind and their role in human and social evolution. A research team is working on designing a Massive Open Online Course (MOOC) on the theme based on the comprehensive outline.

Science of Networks

The World Academy initiated a series of e-seminars on the ‘New Sciences’, the first being on the subject of ‘The Science of Networks’ on November 8, 2012. Networks play a central role in the biology of organisms and their physiological functioning, social organizations and relationships, domestic and international political processes, business, finance, development of new ideas and discoveries in science and technology. The discussion focused on the scientific and sociological dimensions of networks and the principles governing their operation. Examples were drawn from various fields of application, including the internet, money, international affairs, scientific research and micro-biology. MSS staff participated in the econference and Garry Jacobs presented on the topic of “Social Evolution and Network Science”.

Transformational Global Leadership

In 2018 MSS prepared a research paper and a proposal in association with WAAS for a project in collaboration with the United Nations Office at Geneva (UNOG) to develop strategies to fill the global leadership vacuum. The project was approved and was inaugurated during a high-level meeting held at Baku, Azerbaijan titled in April 2019 entitled “Global Leadership in the 21st century.”

This project was jointly launched by WAAS and the United Nations Office at Geneva (UNOG) in June 2019 to accelerate progress on pressing challenges and emerging opportunities, and accelerate implementation of the SDGs. This multistakeholder, multi-sectoral project will culminate in a major conference at UNOG on October 27-28, 2020 on the occasion of the UN's 75th anniversary celebration, followed by a final report to the UN, development of university level courses and media outreach strategies. MSS is a core partner in this project.

In November 2019 MSS participated in two executive briefings at UNOG for UN agencies, UN member states and leading international NGOs. In December MSS collaborated in launching an online survey of these agencies and other collaborating partners in order to identify fundamental principles and effective strategies that can be applied to consciously accelerate the process of global social transformation. MSS staff have been providing administrative and research support for the project.

On March 5-7, 2020, MSS participated in the 2nd World Sustainable Development Forum (WSDF) at Durango, Mexico. A meeting with 35 representatives of international youth groups, including Fridays for the Future, enabled WAAS to enlist the active participation of youth groups in GL-21.

Part I of an online roundtable on “Catalyzing Rapid Social Transformation” was held electronically on March 11, 2020 over a webinar to discuss topics included in the Dubrovnik Roundtable originally scheduled on March 8 evening to March 11 afternoon and subsequently postponed due to the Corona Virus threat. A second online meeting, Part II, has also been proposed at a later date to cover other topics of the original agenda. MSS presented at the conference.

Publications: “The Leadership the World Needs” [10] and “Ideas that Changed the World” [11] by Ashok Natarajan were published in the October 2018 and May 2019 issues of Cadmus Journal. An article titled “Global Leadership in the 21st Century” [12] by Garry Jacobs, Donato Kiniger-Passigli and David Chikvaidze will be published in the May 2019 issue of Cadmus Journal.

Future Capital Initiative

The Future Capital initiative is focused on restoring the right relationship between consciousness and capital, as creative force and constructive resource. The project was initiated in collaboration with the World Academy of Art and Science, United Nations Office for Partnerships and UNCTAD.

A principal objective of FCI is to support and accelerate existing transformation initiatives while also identifying and promoting new and emergent initiatives aimed at improving the quality and speed of implementation of the UN SDGs. MSS staff are represented on the FCI organising committee.

The inaugural gathering of 50 founding members of the Future Capital Initiative was held at the United Nations in New York, September 12–13, 2019, in collaboration with WAAS, the UN Office for Partnerships, and the United Nations Conference on Trade and Development (UNCTAD). MSS staff was part of the invite-only event.

A Roundtable organised by WAAS on “Future Capital: Financing Global Development” was held at The World Bank, Washington D.C. on September 16-17, 2019, in which MSS staff participated.

MSS staff participated in a roundtable discussion at the Inter-University Centre, Dubrovnik, Croatia on November 18-20, 2019 to explore the psychological and social foundations of money, the financial linkage between economic and political equality, and the utilization of money as an instrument for either concentration of power or the wellbeing of all.

MSS staff have started collaboration a project titled “The TAO of Finance” which seeks to study proposals related to development of a cryptocurrency using Distributed Ledger Technology to finance investments needed to achieve the UN SDGs.

Science, Technology and Society

WAAS is facilitating the development of a new field of Symbiotic System Science in collaboration with IEEE to promote the development and application of advanced technologies in a harmonious manner that supports human-centric economic and social growth and wellbeing. MSS staff provide research and administrative assistance to the project.

The 18th International Conference on Cognitive Informatics and Cognitive Computing (IEEE ICCI*CC 2019) was held at Politecnico di Milano University, Italy on July 23-25,

2019, in which MSS Staff presented a paper. MSS also provided organisational assistance for the event in collaboration with IEEE.

Following this event, another conference was organised by the Politecnico di Bari University, Bari, Italy, on October 6-9, 2019 on the theme “Systems, Man, and Cybernetics.” MSS staff presented a paper at the conference.

XI. PSYCHOLOGY

Over the past three decades, MSS has been working on a new model of personality derived from Sri Aurobindo’s view of human development. The model takes into account both superficial and deeper layers of behavior, character, culture and individuality as well as differences in individual capacity for accomplishment. Case studies include application of the model to characters in Jane Austen’s *Pride & Prejudice* and other literary works.

Behaviour, Character and Personality

In the early 1970s, MSS developed a classification of levels of human personality to distinguish between learned patterns of behaviour, inherited character traits and expressions of unique individual personality. A paper on this subject was prepared. A research project was formulated to evolve measures for testing the level of personality development, which could be particularly useful for identification of creative students, selection of managers for highly responsible positions, and better job placement of incoming recruits.

Foundations of Human Happiness

In the late 1970s, MSS conducted preliminary research on the factors that contribute to a sense of happiness and personal fulfilment and the problems faced by people of different sexes, ages, social and economic groups, and nationalities in achieving happiness in their lives. The project involved interviews with 30 individuals in India, Europe and USA to obtain clinical data and case material for the study.

Six Dimension Model of Personality

In 2007, MSS began research to evolve a comprehensive model for human personality based on Sri Aurobindo’s conception of human consciousness. The objective of the model is to assess the capacity of personality for accomplishment and to identify the natural stages of psychological growth on multiple dimensions. The model consists of six interrelated dimensions: level of consciousness, depth of personality, energy, strength, direction and values. Studies have also been undertaken of characters from major literary works in order to apply the model to differentiate

Expert System and Website on Relationships

In 2009, the Society developed a computerized expert system to guide individuals on strategies to improve harmony and good relationships between married men and women. The study includes identification and analysis of 10 major categories of problems and

development of a ten level scale of harmony, on which users can evaluate the current status of their relationship and identify measures to raise it to a higher level. The objective is to examine 1000 common relationship problems and formulate strategies to address them. See www.romanceeternal.org. The site is open to the public.

MSS continued work on strategies to improve marital relationships by conducting interviews with married couples facing problems and by evaluating problems submitted to its on-line expert system.

XII. SCIENCE

Science & Spirituality

In 1992 the Society embarked on an examination of the common assumptions underlying the physical and social sciences in the light of Sri Aurobindo's thought. Discussions were conducted with two Nobel laureates in Physics and other internationally distinguished scientists in India, Sweden, Italy, Russia and USA on methods to bring about this breakthrough and reconciliation of scientific and spiritual knowledge.

In 2003, the Society launched a research project to re-examine of the basic principles underlying modern science in the light of the teachings of Sri Aurobindo, including a review of current thinking in nuclear physics, cosmology, biology and systems theory to identify the underlying mental framework and implicit assumptions about the process of creation in the universe and to compare it with the process described by Sri Aurobindo.

Future of Science

In October, 1994, the Society co-organized a special session on the Future of Science at the General Assembly of the World Academy of Art & Science in Minneapolis, USA.

Human Science

The division of fields of knowledge into innumerable disciplines and sub disciplines has resulted in an extreme fragmentation of knowledge that prevents formulation of common underlying principles and processes. It has also fostered a growing abstraction and separation between knowledge and human beings. In 2007, MSS launched a new collaborative project entitled Human Science wiki (www.humanscience.info) in an attempt to identify common underlying processes and principles unifying the various fields of social sciences and humanities. Human Science is based on the premise that there is one fundamental science of humanity that transcends and unifies all the fields of social science and humanities. The same universal principles, processes and patterns govern and underlie human activity in different fields. The same principles and processes govern behavior and events at the level of the individual, family, organization, community, nation and the global community. It conceives of political, economic, social and historical phenomena as expressions of individual and social psychology, rather than self-existent fields governed by impersonal laws independent of human beings. The site now includes 1000 principles of development, approximately 300 articles and 2864 pages of content. It is divided into 12 portals such as Development, Management, Personality, Spirituality, Personal Accomplishment, Literature, Science & Technology and Health. It also contains 12 special application projects such as Employment, Values, Pride & Prejudice, Theory of Money, Life in Cinema and The Secret. Twenty-one registered users are contributing to the site. The site now receives more than 10,000 visitors monthly.

Limits to Rationality

In 2011, MSS, in collaboration with the World Academy, launched a project to examine a range of questions regarding the nature of knowledge, thought processes and the limits to rationality as they relate to the quest for knowledge in the physical and social sciences and humanities. An ultimate objective of this project is to catalog characteristic patterns,

misconceptions and superstitions regarding the nature of human thought processes and to develop guidelines for promoting original thinking and creativity in the quest for knowledge. A special session on Limits to Rationality was conducted during the major international conference on “Humanities and the contemporary world” by the Montenegrin Academy of Sciences and Arts in collaboration with the World Academy of Art & Science at Podgorica, Montenegro in June 2012.

Science, Knowledge, Genius & the Nature of Mind

MSS continues its research on Sri Aurobindo’s conception of the human mind and its relevance to science and knowledge. Great advances have been made by modern science through the analysis of different aspects of reality by division and subdivision into smaller and smaller parts, but the reductionist approach has also resulted in a fragmentation of knowledge and divorce of intellectual understanding from life realities. Historical evidence confirms that the greatest scientific discoveries were achieved by intuitive and synthetic rather than analytic separative mental processes. In September 2013, MSS participated in a workshop on the Discipline of Anticipation in science at Lausanne, Switzerland and explored different concepts of knowledge applicable to the natural and social sciences at an international colloquium at CERN in Geneva in March 2014 and can be viewed on the CERN website. MSS staff have published the following research articles: “Limits to Rationality and the Boundaries of Perception” (*Eruditio Journal* Spring 2013), “Recognizing Unrecognized Genius” (*Cadmus Journal* Oct 2012), “Creative Consciousness” (*Cadmus Journal* Oct 2013), and “Ways of Knowing” (*Eruditio Journal* Spring 2014).

In 2012-13, MSS continued work on the role and application of rationality and intuition in the field of scientific discovery and examined the impact of sociological factors on scientific activities. A paper was presented at the special session on ‘Limits to Rationality’, conducted during the major international conference on “Humanities and the Contemporary World” by the Montenegrin Academy of Sciences and Arts in collaboration with the World Academy of Art & Science at Podgorica, Montenegro in June 2012.

In 2013-14, MSS continued its study of Sri Aurobindo’s conception of the nature of the human mind and its relevance to science and knowledge. Great advances have been made by modern science through the analysis of different aspects of reality by division and subdivision into smaller and smaller parts, but the reductionist approach has also resulted in a fragmentation of knowledge and divorce of intellectual understanding from life realities. Historical evidence confirms that the greatest scientific discoveries were achieved by intuitive and synthetic rather than analytic separative mental processes. In September 2013, MSS participated in a workshop on the Discipline of Anticipation in science at Lausanne, Switzerland and explored different concepts of knowledge applicable to the natural and social sciences at an international colloquium at CERN in Geneva in March 2014 and can be viewed on the CERN website. Its research on the limits to rationality appeared in *Eruditio Journal* in Spring 2013 titled “Limits to Rationality and the Boundaries of Perception” [Annexure12] preceded by an article on nature of genius titled “Recognizing Unrecognized Genius” [Annexure13] which was published in *Cadmus Journal* in Fall 2012 and followed by an article on Creative Consciousness [Annexure14] published in *Cadmus Journal* in Fall 2013. “Unification in the Social Sciences: Search for a Science of Society,” [Annexure15] an article by Garry

Jacobs, Winston Nagan and Alberto Zucconi, was published in the October 2014 issue of *Cadmus* Journal.

In 2015-16, MSS prepared a research paper by Ashok Natarajan titled “Viable Solutions for seemingly Intractable Problems” [Annexure 16] which was published in the October 2015 issue of *Cadmus* Journal. MSS also conducted extensive research in collaboration with WAAS and WUC to conduct a post graduate level course on Mind, Thinking and Creativity from April 12-15, 2016 at Inter-University Center, Dubrovnik. MSS staff will present lectures.

XIII. LITERARY CRITICISM & CINEMA

Entertaining literature enthralls us with suspense, humor and the intense action of an engaging plot. Superior literature transcends mere action. It presents to the reader the author’s insights into human character and reveals the complex ways in which character and action interrelate to generate chains of consequences and results. Still finer literature reveals the complex interactions between action, individual character and the evolving character of the society in which the action takes place. The greatest literature goes still further. It reveals not only insights of individual and social character but of the character of life itself.

Human Character, Life and Social Evolution in Pride & Prejudice

The process of social evolution effects changes in all aspects of human life, such as the relationship between the classes, attitudes toward wealth and work, marriage, the rights of women and minorities, the arts, literature, politics, etc. During the French Revolution, England’s ruling aristocracy was deeply concerned about the possible spread of revolutionary fever across the English Channel. As a result, England embarked on a period of rapid social evolution, in which different classes of society intermixed and intermarried, and the aristocracy opened the gates of privilege to the rising Middle Class. Jane Austen’s famous novel *Pride & Prejudice*, which was written during this period, reflects the evolutionary changes taking place in social attitudes and behavior. The Society is engaged in an in-depth study of the process of social development as expressed in the changes depicted in the novel. In 2008, MSS conducted six seminars in Pondicherry and various parts of Tamil Nadu, including a two-day seminar for executives of BHEL at Ranipet on August 6-7 and a two-day seminar for 60 people in Chennai at the end of August. A detailed study and text commentary on the book as well as a Tamil translation of the novel and the commentary are under preparation. Over the past five years, MSS has contacted more than 25,000 college lecturers and professors of English literature in the USA, Canada and UK to exchange views on this new approach to literary criticism. Janani Harish, representing the Society, delivered two lectures in 2012 addressing faculty members, graduate and postgraduate students of leading colleges in Chennai on the process of social evolution in “*Pride and Prejudice*”. See www.prideandprejudice.info/ <http://lifeinliterature.org>

The society continued its research in 2014-15 on social evolution and human character in Jane Austen’s *Pride & Prejudice*. Twelve seminars were organized by MSS during the year in Chennai, Dindigul and other locations to present research findings. Research

included preparation of lectures with examples from literature for a post-graduate course on individuality and accomplishment for presentation in Europe in August 2014.

The Society continued its research in 2017-18 on social evolution and human character in Jane Austen's *Pride & Prejudice* and conducted a series of seminars in South India during the year.

The Society continued its research in 2018-19 on social evolution and human character in Jane Austen's *Pride & Prejudice*.

Publications: "Literature as a Key to Understanding People, Society and Life" [14] by Janani Ramanathan was published in the May 2018 issue of *Cadmus Journal*.

Shakespeare

In the late 1970s, MSS conducted a study of five of Shakespeare's most important works – *Hamlet*, *Macbeth*, *King Lear*, *Othello*, and *As You Like It*, and developed an original interpretation of these plays based on the supposition that the characters and actions portrayed reflect deeper truths of human character and the character of life. These studies were published in an Indian literary journal and sent to leading Shakespearean scholars in India, England and North America. Subsequently MSS held personal correspondence and discussions with several of scholars to explore responses to its approach.

Novels

Over the past decade, MSS has formulated an original approach to the understanding and evaluation of prose fiction based on knowledge of human personality, social development and the character of life. It has applied this approach to study novels by Jane Austen, Charlotte Brontë, Alexander Dumas, Herman Hesse, Victor Hugo, Margaret Mitchell, Anthony Trollope, Jules Verne.

In 2000, MSS began an in-depth study of Jane Austen's novel, *Pride & Prejudice*, to examine the process of social development as well the reflections of fundamental truths of life and human character depicted in the novel. The study brings out through the narrative the process of social evolution that occurred in England during the Napoleonic era in contrast to the violent social revolution taking place across the English Channel. It also examines the power of personal attitudes and decisions to determine life events and their outcomes. Two seminars were conducted in Madras and Pondicherry to discuss the findings of the study. In 2007 MSS launched what has become the world's most in-depth and comprehensive website on *Pride & Prejudice* including a detailed analysis of the characters and significant events as well as a detailed line commentary on the text. See www.prideandprejudice.info.

Cinema Reviews

In addition in recent years MSS has applied the same approach to critically review more than twenty contemporary motion pictures.

Human Character, Life and Social Evolution in Pride & Prejudice

XIV. INDIAN DEVELOPMENT & AGRICULTURE

Village Adoption Programme Unleashes a Multiplier Effect

The Society owns and manages a 123 acre rural development project in the village of Ramapuram, Cuddalore Taluk, South Arcot District, Tamil Nadu. One month after the nationalization of major Indian commercial banks in July 1969, officers of the Society approached one of the largest commercial banks to adopt Ramapuram – an extremely backward village where the average annual income from agriculture was less than Rs. 200 per acre. Ramapuram became the first village in India to be adopted by a nationalized bank for development. The Society administered the entire programme on behalf of the bank, dispersing 123 crop loans for Rs. 63,000. Repayment of loans was 100% and on time. Based on this success, the bank extended the programme in the second year offering crop loans, bullock cart and borewell loans valued at Rs. 750,000. Despite the Society's success in digging 8 borewells on its own land, not a single farmer would risk digging a well until the Society offered to bear the risk of digging a well for one small farmer. After the first farmer succeeded, 54 others took bank loans and dug wells. This effort had a catalytic multiplier effect on nearby areas not covered by the loan scheme, where 440 more wells were dug during the next two years. Within fifteen years, Ramapuram had been transformed from a very poor, rain fed area into a rich farm region covered with sugarcane and other cash crops, and one of the most prosperous villages in the district. Average income rose 100 fold during this period and continued to rise over the following decades. In subsequent years, the village adoption scheme extended all over India, covering more than 100,000 villages by 1980.

District Development Programme

In the process of studying the developmental potentials of South Arcot District, the Society became aware of a huge, untapped, deep artesian aquifer extending over 2000 square miles and capable of irrigating several hundred thousand acres. In order to exploit this enormous potential, which lay beyond the capacity of individual farmers due to the depth and cost of deep borewells, the Society conceived an integrated, multi-dimensional strategy for developing the district. The strategy centred on the establishment of a semi-autonomous development corporation whose activities would include tapping and distributing water, providing agro-inputs and services, demonstration and training of farmers, marketing, establishing agro-industries, transport and coordination with financial institutions. The Society's proposal was submitted to the Central and State Governments for consideration. A detailed technical feasibility study was undertaken by the State recommended implementation. The proposal was also supported and commended by Dr. David Hopper, Vice President of World Bank. In the early 1980s the Tamil Nadu Government set up a Tubewell Corporation to undertake some of the functions described in the proposal.

Rural Credit

In 1975, the Union Finance Ministry established a new type of credit institution, the Regional Rural Banks, intended to meet the financial needs of the rural population which

were not being met by the cooperative and commercial banks. Based on extensive research and field experience, the Society prepared a set of recommendations designed to ensure the successful functioning of rural banks, particularly with regard to recovery of loans. Among the suggestions accepted by the Union Finance Minister, C. Subramaniam, was a recommendation for granting jewel loans on a much larger scale than ever before. Until then, jewel loans were granted only on a very limited scale by cooperative banks and not at all by commercial banks. Within a decade, jewel loans constituted nearly 50% of all lending by many of the Regional Rural banks and were liberally issued by cooperative and commercial banks as well.

Export of Buses to USA

In 1974-75 following the first global oil crisis, the Society identified a very large demand for buses in the USA to enhance its public transportation system which was not being met by American manufacturers. The Society examined potential US markets through its sister organisation Mere Cie. and provided detailed specifications and market reports to Indian bus chassis and body manufacturers including Telco, Ashok Leyland, TVS, Allwin and Bharat Earth Movers Ltd. Great interest was evinced by Telco but a sudden spurt in demand from oil exporting countries in the Middle East made the development of a new bus less attractive than increased production of their standard models.

Liquid Fuels from Coal

Soon after the onset of the oil crises, the Society undertook research in technology for conversion of India's huge coal reserves into liquid fuels based on technology developed in the US. The society presented extensive technical materials to the Union Energy Minister, Mr. K.C. Pant, and Secretary of Mines, Mr. Chari. It also contacted the U.S. Dept. of State and recommended Indo-U.S. collaboration in this field, a suggestion which was implemented by the Indo-U.S. Joint Commission established in November 1975.

Employment Generation

In 1977, the Society helped establish two pilot projects to promote labour intensive employment opportunities for women in Pondicherry by promotion of export-oriented industries for manufacture of high quality, hand-woven woollen tapestries and floral incense. A training center for these activities was operated for two years and imparted skills to hundreds of young women. Over time, direct employment in these projects grew to more than 500 workers and gradually led to the establishment of other similar business units in the surrounding area.

In January 2006, the Society was invited by Dr. Arjun Sen Gupta to submit detailed recommendations to the National Commission on Employment in the Informal Sector, which he chaired. The decision of the Government of India in September 2007 to extend the Employment Guarantee Scheme to all districts of India reaffirms the importance of this research issue.



Internet-Based Employment Generation

In 2007-08 the Society launched a pilot initiative to generate internet-based self-employment opportunities. MSS researchers identified hundreds of self-employment opportunities for publication on www.seekluck.com. More than 50,000 Indian youth have registered with the site in order to benefit from this research project. In addition, the Society sponsored several new websites by internet-based entrepreneurs. More than 100 articles were published on this theme of self-employment in the New Indian Express.

Report to the Union Planning Commission

When the Sixth Five Year Plan was being formulated in 1980, the Society undertook a study to identify new programmes and strategies intended to accelerate development. A report consisting of 138 programmes was prepared and submitted to Dr. M. S. Swaminathan, Member of the Planning Commission, and Mrs. Indira Gandhi, Prime Minister of India. The report contains a statement of development principles and strategies as well as programmes covering 12 major areas: planning, agriculture, forestry, agro-based and village industry, industry, commerce, transport, tourism, education, journalism, awards, and urban development. Several of the programmes have been taken up for implementation by the Government. A full page Special Report on the Society's recommendation was published by "The Hindu" in February 1981.

Measures and Indicators of Development



When the Society presented a copy of its report to the Planning Commission and to Mrs. Indira Gandhi in November 1980, the Prime Minister expressed particular interest in the proposal to evolve new measures and indicators of development that would more accurately reflect the real progress of the country than traditional economic indicators like GNP. Later the same day, Mrs. Gandhi addressed a national conference of scientists on the need for new statistical measures of development.

As a result of this interest, the Society initiated a research project on this topic and evolved a new measuring instrument, the Quantitative Scale of Physical Development, QSPD. The scale measures changes in standard of living over ten categories including nutrition, clothing, housing, health,

education, transport and communication, community facilities, etc. A preliminary paper describing the QSPD was submitted to the Union Planning Commission and the Prime Minister's Secretariat.

In 1981, a field study was undertaken in Thadagam Village, Gingee Taluk, applying the QSPD to measure the development of the village, utilizing baseline data from a survey of the village by the Central Census Organization in 1961 for comparison. The study revealed an overall 47 percent improvement in development of this village in twenty years on a scale of more than 100 development parameters. Subsequently, the Society tested the scale in two more villages and an Annamalai University research team employed it for a comparison of ten other villages.

After a study of the Society's model, the Prime Minister's Secretariat requested the Society to prepare a comprehensive plan for the introduction of new development indicators on a nationwide basis and a report outlining six graded proposals with cost estimates was submitted in December 1981. As a result, the Union Planning Commission organised a national conference on Regional Planning and Development Indicators at Nainital in April 1982, and the Society was invited to present its model at the conference.

In 1991, ten years after the original study, the Society returned to Thadagam and resurveyed the village to measure further progress during the period 1981-91 and as an indication of the general success of village development programs in the district. The study included household surveys of 100 families and detailed nutritional surveys of 50 families. Results were analysed statistically and compared with earlier results on the index. Marked improvements were noted in some key dimensions of development including food, clothing, education, recreation and physical assets.

Report on Agro-Industries

At the request of the Tamil Nadu Minister of Cooperation, in 1982, the Society undertook research on agro-industries suitable for propagation on a wide scale in the state and presented a report to the state government recommending introduction of jasmine and citronella oil extraction industries in the tiny sector and creation of a large plantation of jojoba shrubs in a dry desert tract. The recommendations on jasmine and citronella were accepted by the government and Rs. 4.5 crores were sanctioned for development of these industries through Land Development Bank.

Development Year Strategy

In 1982, the Society undertook a research project to evolve a broad-based strategy for stimulating national development, based on the view that the country was well poised for accelerated growth provided that the enthusiastic support of the public could be enlisted for the effort. The strategy consisted of two parts -- Development Year and Development Model.

Development Year is a massive programme of public education over 365 days designed to disseminate information on past achievements, present opportunities and future potentials in every sector of national life. Development Model is a plan for comprehensive and integrated implementation of all existing development schemes

through a new administrative organization in one district to serve as a model for the rest of the country.

A report was drawn up outlining the purpose of this programme, the strategies, goals and mode of implementation. The content of the educational programme was illustrated with descriptions of the themes to be presented during different weeks and days of the year, the techniques for projecting them through the media, the role of various governmental and non-governmental organisations, and the anticipated results. The concept, strategies and objectives of a Development Model were described along with a list of 35 general development activities which could be implemented in every district.

A preliminary report was presented to Mr. Rajiv Gandhi, then Member of Parliament,



and to the Prime Minister's Secretariat. At the latter's request, the Society prepared a more comprehensive report entitled "Themes and Programmes for Development Year" detailing the information to be projected during the programme and the mode of implementation. The second report contains 29 major themes for public education along with a list of truisms to be projected and misconceptions to be removed. It also includes illustrative material for ten programme weeks including scripts for radio skits intended to dramatise achievements and potentials.

The second report was submitted to the Prime Minister's Secretariat and referred to the Planning Commission and Ministry of Information and Broadcasting for detailed examination. A summary of the report was

Special supplement to The Hindu,
August 1982

also published as a full page special report by "The Hindu" in August 1982 (See image: Special supplement to The Hindu,

August 1982).

Legal & Economic Administrative Reforms for Development

In 1982, the Society presented recommendations for stimulating national development to Dr. L.K. Jha, Chairman of the Commission for Economic and Administrative Reforms. A report was prepared outlining 12 reforms designed to reduce bureaucracy and corruption, stimulate agriculture and forestry, and promote industry, etc. At the request of the Ministry of Law of the Tamil Nadu State Government, the Society also conducted a preliminary study to identify reforms which could be introduced in the state legal apparatus. A report was prepared containing 50 minor reforms in the field of court procedure, education, transport, cooperative banking, sales tax collection and other areas to add a stimulus or remove road blocks to development.

Export-Oriented Handmade Paper Industry

Beginning in 1975, the Society commenced a ten-year research project with the objective of developing the technology for an export-oriented handmade paper industry in India to manufacture high quality art and printing papers for the Western market. Detailed experiments and testing were carried out on a pilot basis to perfect measures to ensure quality up to international standards. Market surveys and test marketing done in the USA revealed a very high demand for quality handmade paper, estimated at more than 3 lakh tonnes per year. A report detailing the market potential, economics and technical feasibility of this industry were submitted to the Prime Minister's Secretariat and examined by National Small Industries Corporation, which offered to finance 20 units based on the new technology. UNIDO carried an announcement about the new technology in its international newsletter. In 1984, a pilot unit was established by Mira Papers Pvt. Ltd. at Tirukovilur, South Arcot District, and exported paper to the USA at a price of Rs. 60,000 per ton, roughly five times the price of Indian mill-made paper. The American buyers found the paper to be of very high quality.

Blue Revolution in Aqua-Culture

In 1983, the Society identified a new technology developed in the USA for intensive cultivation of hybrid fresh water fish utilizing sophisticated breeding and production techniques. With the assistance of the Society, a large scale research cum commercial project was established near Chengleput, Tamil Nadu by Vorion Chemicals & Distilleries Ltd. to utilize this technology as a commercially viable means of processing and recycling organic effluent from its ethanol plant. After extensive testing, an 80 acre commercial fish farm was commissioned achieving yields of more than 20 tons per acre per year – 10 to 15 times the normal yield from inland aqua culture projects in India. This technology holds forth the promise of creating a Blue Revolution for fish culture in India. A single acre of cultivation can return a net profit of more than Rs.1 lakh per year. Even small 10 to 15 cent plots can generate very attractive returns for small and marginal farmers. In 1991, this technology received a national R&D award from the Department of Science & Technology.

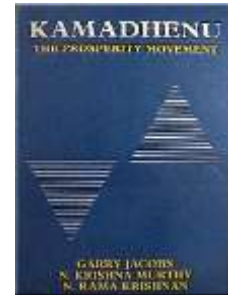
Potential for Indian Software Exports

In 1984, the Society undertook a detailed study of the export potential for computer software and programmers from India to Western Europe and the USA. The study involved personal discussions with more than a dozen software houses in Switzerland, Sweden, France, Denmark, Norway, Holland and the USA including a meeting with IBM in New York. The study revealed that there is an enormous demand for programmers in the West that is not being met by educational institutions in those countries. A deficit of nearly one million programmers was expected by 1990. Western companies expressed serious interest in exploring the potential for collaboration with India in order to meet their growing requirements for technically qualified manpower. The Society has prepared and submitted a report to the Prime Minister's Secretariat based on the study. The report recommends the establishment of export-oriented computer training institutes in India to prepare 20,000 students a year for work in this field. The institutes could be operated in collaboration with Indian and foreign companies, several of whom have expressed interest in the idea. An article based on the study was published in the United Nations newspaper *Development Business*, in December 1984. At the time of the Society's study,

India's total software exports amounted to only \$10 million per annum. Potential size of India's offshoring industry is estimated at US \$ 120 to 180 billion by 2015.

Book on Indian Development

In 1985, the Society published *Kamadhenu: The Prosperity Movement in India*, a book presenting a wide range of strategies to accelerate India's development drawn including articles previously published in *The Hindu* newspaper and material from two reports presented to the Government of India.



Seminar on Indian Development

In July 1986, the Society organised a seminar on Indian Development at the annual conference of the Western Economics Association in San Francisco. A paper outlining the Society's model of the development process was presented by Dr. David Lane. Dr. S. P. Gupta of World Bank, Dr. Irma Adelman and Dr. Sherman Robinson of University of California at Berkeley were guest participants.

Evaluation of IRDP

In 1986, the Society undertook an evaluation of the Integrated Rural Development Programme in Pondicherry covering 1145 beneficiaries. The study revealed that IRDP had raised the average income of beneficiaries by 81 percent and that three fourths of loan recipients recorded an income rise of at least 30%. Recovery of loans was only 45%, but a substantial portion of this could be attributed to improper identification of beneficiaries. The study examined the role of education, prior experience, occupation and community on performance. In addition, it evaluated the overall return on investment of IRDP and found it to be an extremely high 139%, approximately ten times the average anticipated return on all Seventh Plan investments.

Conference on Indian Development Potentials

In March 1988, the Society organized a two-day national conference in Chennai to highlight untapped potentials and strategies for accelerating Indian development. Participants included David Smith, chief economic adviser to US Senator Edward Kennedy; the President of the Federated Indian Chambers of Commerce & Industry; the Vice Chancellors of Pondicherry University and Tamil Nadu Agricultural University; Chairman of the State Planning Commission; and a former Adviser in the Union Planning Commission. Financial assistance was provided by a grant from the Union Planning Commission.

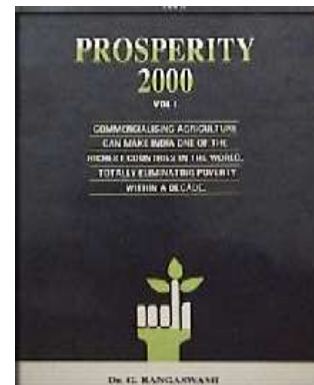
National Foundation of India

Preparations were underway during 1991 for establishment of the National Foundation of India (NFI). The Society worked with the Governor of Maharashtra, C. Subramaniam, Dr. M.S. Swaminathan and other founding members of NFI to evolve strategies to make NFI a dynamic and effective instrument for national development. The Society prepared two papers detailing a range of innovative education, research and development programs for NFI to initiate.

Prosperity 2000 Strategy for Full Employment

In 1991, the Society conducted a study of the commercial potentials of Indian agriculture in collaboration with the International Commission on Peace and Food (ICPF) in order to evolve a strategy to generate full employment in India during the succeeding ten years. The study examined the technological and commercial potentials of cash crops and animal husbandry and identified missing organizational linkages needed to full exploit India's capacities. The study concluded that 100 million new jobs could be created within a ten year period by accelerated development of commercial agriculture, agro-industry and agro-exports.

The findings of the study were published as a book entitled Prosperity 2000: Strategy to Generate 100 Million Jobs in India within 10 years. The Prosperity 2000 strategy was subsequently presented to the Prime Minister and the Planning Commission of the Government of India and incorporated the recommendations in the Eighth Five Year Plan. The Small Farmers' Agri-Business Consortium was established by the Government to implement the programme and district level studies were initiated by the Government in 12 districts around the country.



In 1994, Society staff worked with Agriculture Finance Corporation to apply the Prosperity 2000 strategy in Pune District, Maharashtra. The study focused on the potentials for stimulating development of commercial agriculture in areas such as flower cultivation, vegetable and fruit production and processing, inland fish culture, mushrooms, etc. The study concluded that this strategy could generate additional employment of 750,000 in the district.

Prosperity 2000, Vol I & Vol II

In 1996, the Society organized a national conference on India's economic potentials in Chennai to discuss strategies to stimulate employment generation and economic growth.

In 1997, the Society applied the Prosperity 2000 strategy to identify opportunities for stimulating employment generation in the Union Territory of Pondicherry. This study identified potentials for increasing total job creation in the state by 15%.

India's Vision 2020

A Society staff member was invited as a member of the Vision 2020 Committee constituted by the Union Planning Commission to draw up a plan for the development of India over the succeeding 20 years. In summer 2000, Society staff prepared and presented a paper to the Committee on the Role of Knowledge in Development. In 2001, the Society prepared a chapter for the Committee on Toward a Knowledge Society, covering issues related to education, technology development and dissemination of information. In January 2002, the Society prepared a draft of the final report for the Committee, integrating recommendations from more than 25 discussion papers submitted to the Committee. The Society continued to serve on the editorial committee responsible for finalizing the report until its release to the public in December 2002.

Task Force for Creation of 10 Million Jobs a Year

In 2002-03, the Society was invited to serve on a Task Force established by the Union Planning Commission to propose strategies to achieve full employment in India. The Task Force was chaired by Dr. S. P. Gupta, Member of Planning Commission. The Society participated in numerous meetings of the taskforce and presented two papers on *Employment Potential in the IT Industry* and *Innovative Strategies for Employment Generation through Wasteland Development and Bio-fuels Production*.

Project for Advanced Agricultural Technology

In 1999, the Society collaborated with California Agricultural Consulting Services (CACS) of USA to evolve a plan for disseminating high yielding soil management and production technology in India and for creating a computerized expert knowledge database system to make the latest information available to farmers throughout the country.

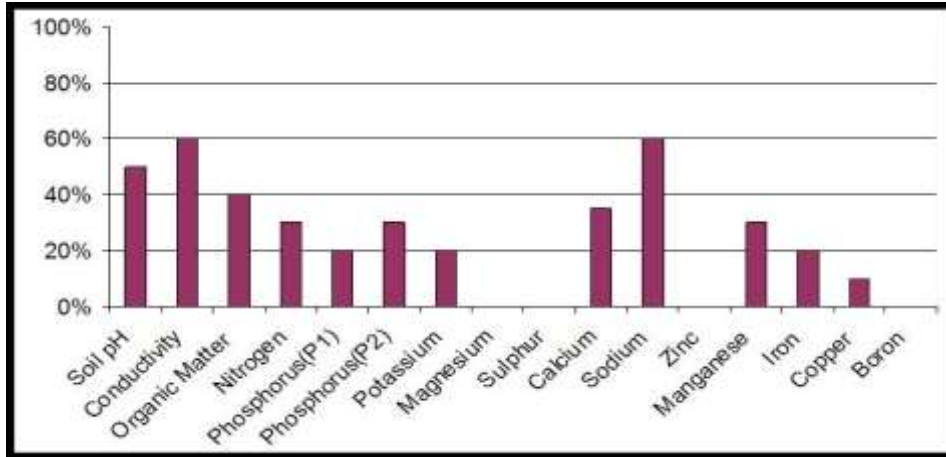
In summer 2000, the Society in collaboration with CACS submitted a proposal at the request of the Union Planning Commission for establishment of a Farmers' Training that would train lead farmers and farm managers from all over India.

In July 2001, the Tamil Nadu Government requested the Society to prepare a proposal for a pilot project to introduce, demonstrate and disseminate advanced agricultural production technology throughout the State. The pilot proposal involved acquisition and transfer of technology from a leading US firm, California Agricultural Consulting Services. It called for the establishment of a model farm cum training centre at Neyveli to train farm school instructors, establishment of 500 village-based privately owned Farm Schools, and training of more than 24,000 farmers within four years. The objective of the proposal was to double or triple the average net income from agricultural lands. To assure off-take of the increased farm produce, the project envisioned establishment of rural industries, including biomass power plants, oil extraction units, ethanol plants, fruit and vegetable processing plants. The strategies focused on developing the potentials of biomass power, ethanol from sugarcane, edible oil from Paradise Tree and fuel oil from Jatropha. Based on these recommendations, the Government announced a major programme for wasteland development in the State.

In January 2002, the Society presented a scheme to the Government of Tamil Nadu for a massive farmer training programme to disseminate CACS technology to more than one lakh farmers throughout the State. The Government conducted more than 15 high level meetings to discuss the proposal and requested the Society to submit a detailed project feasibility report. In December 2002, the Government of Tamil Nadu requested the Society to submit and present a detailed proposal for establishment of a pilot programme at Neyveli to demonstrate and disseminate high productivity crop production methods based on CACS technology. The Society also participated in a one-day training programme for 600 agricultural officers in Kerala during January 2003 and in discussions with the Government of Kerala regarding a proposal for a pilot project in Malappuram District.

During 2003-04, the Society focused on the economic and employment potentials of jatropha as a source of bio-fuel that can be grown both on wastelands and irrigated lands

and on promoting the use of bio-mass power. Its views were presented to the Chief Minister of Tamil Nadu during the inaugural session of a conference on Opportunities in Tamil Nadu organized by the New Indian Express Group. Following the conference, the Chief Minister requested a copy of the presentation and took steps to promote both these potentials within the State.



Nutrient content of Indian soils before treatment (100% is optimal)



Furrow irrigation of Tomatoes in Tamil Nadu



Furrow irrigation of vegetables at Gemini farms

Bio-fuels

Since 2000, MSS has conducted extensive research on the potential of *Jatropha* as an economically attractive, environmentally friendly biofuel crop for extensive cultivation on medium grade cultivable wastelands in India where few other crops can be grown. Cultivation of oil bearing crops such as *Jatropha* can serve as an economically attractive alternative to the import of fuel oil. Establishment of local oil extraction units can stimulate rural industrialization. Establishment of one million hectares of *Jatropha* oilseeds plantation will be sufficient to provide one million year-round employment opportunities. This plant was introduced from Africa, where it grows in the wild. A wild species already grows in India and is often used as a fence crop. The plant produces large quantities of seeds which contain up to 35% oil. The oil is a bio-fuel and substitutes for No.2 diesel and kerosene. It can be blended in diesel motor fuels up to 15%.





Images of Jatropha plant

National Farmers' Commission

At the request of Dr. M. S. Swaminathan, Chairman of the National Farmers Commission set up by the Government of India, the Society prepared an update of the Prosperity 2000 Strategy for creating 100 million jobs in India within 10 years, which was originally adopted by the Government of India in 1992. The updated and revised strategy was presented to members of the Commission and to senior central and state government officials at three meetings conducted in Ahmedabad and New Delhi during November 2004. The final report including a detailed business plan was submitted to the National Farmers Commission in December 2004. The Commission promptly adopted the Society's recommendation for establishment of 50,000 village-based farm schools and forwarded the proposal to the Government.

National Commission on Enterprises in the Informal Sector

Dr. A. K. Sengupta, Chairman of this Commission which was constituted by the Government of India during September 2004, invited the Society to prepare and present recommendations to the Commission on strategies to accelerate job growth in the informal sector to support the Government's commitment to full employment in India. The Society presented its findings to four members of the Commission at a closed meeting during October 2004.

Workshops on Entrepreneurship & Self-employment

Starting in April 2004, the Society participated in numerous workshops of graduating college students organized by **I.N.D.I.A. TRUST** on entrepreneurial and self-employment opportunities for youth based in Chennai.

Mother Estates

Since its inception, MSS owns and operates an experimental model farm at Ramapuram Village in Cuddalore District, Tamil Nadu. Over the past decade, the entire 123 acre Mother Estates has been converted into organic farm, completely eliminating the use of

chemical fertilizers and pesticides. High quality, remunerative cultivation has been achieved by applying EM (Effective Micro-organisms) technology, which is used internationally for a wide range of applications including agricultural, water purification, animal and human health care. Originally developed in Japan and now employed in many countries, EM consists of a cocktail of approximately 80 beneficial micro-organisms, including the well-known lacto-bacillus found in curd and so essential for human digestion and health. The benefits of EM include:

- Reduces dependence on fertilizers and pesticides
- Improves increases resistance to diseases
- Enriches the soil
- Enhances the self-healing power of the body
- De-activates heavy metals in soil and water
- Removes sludge from canals and sewers
- Improves the taste and shelf-life of plant and animal products,

The lime fruits produced in the orchards of Mother Estates are prized by the market for their huge size, healthy appearance, long shelf-life and excellent taste. The Society is conducting on-going research on ways to improve manufacturing, application and results achieved by the use of EM in agriculture.



Effective micro-organisms



Organic Lime fruits and Cashew Plants at Mother Estates



Deep soil chiseling





EM Cultivation



Lemon Blossom



Banana Grove

Accelerating India's Economic Development

MSS is collaborating with the Global Institute of Integral Management Studies (GIIMS), Kerala, and Ramesh Kumar, an entrepreneur, to develop a comprehensive plan to accelerate India's economic development. The project, termed "Double It," will first do a comprehensive research study of Indian companies that have exponentially increased their income and explore the ways and methods through which they have accomplished, which may later be published as a book.

The Double It! Executive Program is designed to support the Prime Minister's objective of accelerating India's economic growth and double India's GDP as a complement and supplement to policy changes designed to stimulate investment, improve the business climate and encourage establishment of new enterprises.

The Foundation Program of the project was held at Taj Vivanta in New Delhi on 18-19, February 2019. Garry Jacobs is Project Leader and Chief Consultant of the Project. Four other MSS Staff participated in the event.

Publication: Garry Jacobs' interview appeared in the Economic Times on January 8, 2020 and was titled "Rapid Social Transformation is Key to Sustainable Growth."

XV. INTERNET PROJECTS

Internet-Based Employment Generation

In 2007-08, the Society launched a pilot initiative to generate internet-based self-employment opportunities. MSS researches identified hundreds of self-employment opportunities for publication on www.seekluck.com. More than 50,000 Indian youth have registered with the site in order to benefit from this research project. In addition the Society sponsored several new websites by internet-based entrepreneurs. More than 100 articles were published on the subject in New Indian Express.

Expert System and Website on Relationships

In November 2008, the Society initiated work to develop a computerized expert system to guide individuals on strategies to improve harmony and good relationships between married men and women. The study includes identification and analysis of 10 major categories of problems and development of a ten level scale of harmony, on which users can evaluate the current status of their relationship and identify measures to raise it to a higher level. The immediate objective is to examine 1000 common relationship problems and formulate strategies to address them. See www.romanceeternal.org.

Vocational Training & Job Placement Website

In 2008-9, the Society designed a new type of website for vocational training and job placement, providing users with opportunities for gainful self-employment and employment, and a system of skill certification.

E-Learning Systems for Selling Skills

The growth of the world economy has generated millions of new jobs for people selling products and services, such as retail products, manufactured goods, financial and other services. Selling is an essential vocational skill for development of a modern economy, yet there are few formal training programs to equip sales people with the knowledge and skill needed for success in this vocation. MSS has launched Ten Fold Sales, a web-based e-learning system for sales people in different industries.

XVI. PUBLISHED ARTICLES & WORKING PAPERS (this has to be updated after 2012)

Economics

The Power of Money by Ivo Šlaus and Garry Jacobs Published in Cadmus Volume 1 Issue 5, October 2012.

Book review — Money and Sustainability: The Missing Link, by Ivo Šlaus and Garry Jacobs, Published in Cadmus Volume 1 Issue 5, October 2012.

Crises and Opportunities: A Manifesto for Change by Ian Johnson and Garry Jacobs, Published in Cadmus Volume 1 Issue 5, October 2012.

From Limits to Growth to Limitless Growth, by Garry Jacobs and Ivo Šlaus Published in Cadmus Volume 1 Issue 4 April 2012

The Evolution of Wealth & Human Security: The Paradox of Value and Uncertainty, By Orio Giarini & Garry Jacobs, Published in Cadmus Volume 1 Issue 3, October 2011.

The Great Divorce: Economics & Philosophy, By Garry Jacobs, Published in Cadmus Volume 1 Issue 2 April 2011

Need for New Economic Theory & Measures, By Ivo Šlaus and Garry Jacobs presented at Club of Rome Annual Conference in Winterthur, Switzerland, Oct. 2010.

Introductory Paper for a Programme on The Wealth of Nations Revisited, By Orio Giarini, Garry Jacobs, Bernard Lietaer and Ivo Šlaus Published in Cadmus Journal, Oct. 2010.

Wealth of Nations Revisited, By Orio Giarini & Garry Jacobs, Published in Journal Paper No. 15 / 2010, Special Issue on Wealth and Welfare, April 2010

Employment & International Development

Global Employment

- Global Employment Model by Garry Jacobs, Approach paper for the WAAS Global Employment project, Presented at the WAAS workshop on employment at New Delhi, November 2011.
- Global Employment Challenge by Garry Jacobs and Ivo Šlaus published in The Four Pillars Issue No. 49 in September 2011
- Global Prospects for Full Employment by Garry Jacobs and Ivo Šlaus Published in Cadmus Journal in April 2011
- Global Prospects for Full Employment, Presented by Garry Jacobs & Ivo Šlaus at International Conference on Concerted Strategies for International Development in the 21st Century Bern, November 17-18, 2010
- Theory & Strategies for Full Employment, by Ashok Natarajan Published in Cadmus Journal in October 2010
- Employment, Individuality and Development, by Garry Jacobs, Presented to the World Academy of Art and Science's e conference on Global Employment Challenge, Feb 14, 2010
- Fully Utilizing Social Resources can Eliminate Unemployment, By Ashok Natarajan, Presented at the World Academy of Art & Science's e conference on Global Employment Challenge, Feb 11, 2010
- From Newtonian Economics to Full Employment: Need for new theory, by Garry Jacobs – Presented to the World Academy of Art and Science's e conference on Global Employment Challenge, Jan 9, 2010

- The Global Job Machine: Trends & Prospects , Presentation to the World Academy of Art & Science e-conference on Global Employment Challenge November 2, 2009.
- Global approach to youth employment, Prepared by The Mother's Service Society, Pondicherry, India for the Youth Employment Summit, May 4, 2007
- Agenda for a global employment programme, May 1, 2007
- Right to employment, May 1, 2007
- Employment strategies for developing countries, May 1, 2007
- Employment strategies for industrial nations, May 1, 2007
- Opportunities for Full Employment, April 22, 2007
- Theory of Full Employment, April 21, 2007
- Jobs for all, April 21, 2007
- Trading jobs, April 21, 2007
- Destroying myths about job destruction, April 21, 2007
- Job creation during the 20th century, April 21, 2007
- Employment trends in the 21st century, April 21, 2007
- Global Employment Potential, By Garry Jacobs, Presented at General Assembly of the World Academy of Art & Science, Zagreb, Croatia, November 18, 2005
- Employment in the Global Knowledge Society, Presented at the General Assembly of the World Academy of Art & Science in Zagreb, Croatia, November 19, 2005
- Strategies for Full Employment, January 7, 2005
- Employable Skills for Full Employment, presented at the Intl. Symposium on Uncommon Opportunities: Roadmap for Employment, Food and Global Security in New Delhi, November 19-22, 2004
- Employable Skills and Vocational Training, November 21, 2004
- Strategies for Full Employment in India, presented at the Intl. Symposium on Uncommon Opportunities: Roadmap for Employment, Food and Global Security in New Delhi, Nov 19-22, 2004
- Economic Development in the Global Century, a discussion paper for workshops on Economic Development at the 1998 Assembly of the World Academy of Art and Science, Vancouver, Canada, Nov. 5-7, 1998
- Employment Strategy for Pondicherry, India, January 14, 1997, paper prepared for the World Academy of Art & Science
- Future of Work, Presented at the WAAS Seminar, Minneapolis, May 21, 1996
- Employment for All, Report of the ICPF working group on employment, October 1993

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- India guarantees employment, May 4, 2007
- Computerized vocational training, May 2, 2007
- Full employment in Europe, April 22, 2007
- Approach to Full employment in Europe, April 21, 2007
- Creating 100 million jobs in India, April, 2007
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- Opportunities for Full Employment in Europe, By Garry Jacobs and Ashok Natarajan October 21, 2005
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- Model Districts Development Program, December 1991
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- Report on the Establishment of Computer Training Institutes, June 28, 1984
- Report on Meeting with American Telephone and Telegraph regarding Collaboration with the Government of India for Expansion of the Indian Telecommunications Network, June 28, 1984
- India Is Filling The Soft Manpower Gap, July 1984
- Note On Community Colleges For India, By Karmayogi, February 9, 1982

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- Organizing International Food Security, By Garry Jacobs, Jan 31, 2007
- Vision, Not Structure, is key to Japanese Recovery, Published in Japan Times, January 2000
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- Strategy for Rapid Recovery in East Asia, Based on a paper presented at the Pacific Rim Conference of Allied Economic Organizations held in Bangkok, January 13-18, 1998
- Development Strategy for Okinawa, Presentation to workshop on employment generation at Okinawa in 1997
- Developing Human Resourcefulness, Strategies To Eradicate Poverty in the 1990s - Report of the ICPF Working Group on Human Resources, January 1994
- Transition Economics, Report of the ICPF Working Group, October 1993
- Velocity of Social Forces, September 19, 1993
- Challenge to Russian Industry, Article published in the Moscow Business News, 1992

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 By Harlan Cleveland and Garry Jacobs,
 Published in 'Futures', Nov/Dec 1999



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 By Garry Jacobs, Published in 'Moscow News' no. 34, 1992



Lessons of the Economic Transition in Russia
 By Garry Jacobs, Member Secretary, Robert McFarlane, International Commission on Peace & Food, USA Published in 'Moscow News', Weekly no. 33, 1992



World Software Gap - India Promotes Expertise Abroad
 By Garry Jacobs, Published in 'Development Business' United Nations, 16 December, 1984

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