



WAAS Newsletter



Rendezvous at the Taj

The Academy's General Assembly at the Taj Mahal Hotel in New Delhi on November 9-11, 2011 is a landmark event in the recent history of the Academy. All those who were able to attend will affirm that the creative energy and enthusiasm which marked the event signal the Academy's definitive emergence from the challenges of the past year and its readiness to embark on a new era of dynamism and achievement. In all, about 30 Fellows actively participated in the event.

The GA was a resounding success in another respect as well. It confirmed the value of our new strategy of working in closer collaboration with like-minded organizations such as the Club of Rome. As Trustee **Orio Giarini** who was present at the birth of the Club reminds us, our links with the Club date back decades. Two of our past Presidents, **Harlan Cleveland** and **Carl-Göran Hedén**, came from the Club. Today about 35 Fellows, including four of our current Trustees, are also members of the Club. Combining our GA with the Club's annual conference proved an excellent way to expand and enrich the intellectual exchange for both organizations.

In addition, we found time in Delhi to review the Academy's recent program initiatives on abolition of nuclear weapons, the linkage between rising expectations and social unrest, new economic theory, the global employment challenge, and the evolution of law and social development. More importantly, we explored the Academy's new program framework which will serve as a guide for the formulation of new programming initiatives. You'll find reports on each of these projects in the pages of this newsletter.

Interesting proposals were discussed for new activities and events in 2012, including an invitation by **Momir Đurović** of the Montenegrin Academy to co-organize an international conference "Humanities and Contemporary World" in Podgorica; another by the Inter-University Centre in Dubrovnik to co-organize an international conference on "Employment, Migration and Human Security - the Role and Responsibility of Higher Education"; and a proposal by **Gunter Pauli** to undertake research on the potential of the *Blue Economy* to generate ecologically-friendly, employment-intensive commercial opportunities in connection with an upcoming conference in Berlin. In addition, we plan to release the first of a series of WAAS discussion papers early next year.



Ivo Šlaus

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Democracy in Practice

The Academy's Plenum in Delhi on November 11th is a striking example of the power of democracy in practice. A record 190 Fellows participated in the electronic referendum on the future governance of WAAS and 24 were physically present to conclude the polling and hear the results first hand. Many other international organizations can learn and benefit from the Academy's experience in how to directly involve their members in key decision-making processes.

The Academy is now officially incorporated in California with a new set of Bylaws that will empower the Fellows to exercise their rightful role as the Academy's ultimate decision-making body. [Click here for a detailed report](#) on the outcome of the referendum. For important changes in the Bylaws, please see the article on [Page 12](#).

Back to the future and another important upcoming electoral event. As I announced last month, nominations for Officers, Trustees and Fellows of WAAS opened on November 16, 2011 and closed on December 5. Direct elections for Trustees and Fellows will run from December 20, 2011 to January 31, 2012. For the first time in the recent history of WAAS, Fellows will directly decide on the election of new Fellows to the Academy. In addition, the elections will expand the Board of Trustees to 20 members, with replacement for retiring President Emeritus **Walter Anderson** and retiring Trustees **Pushpa Bhargava** and **Dan Coates**.



Changing of the Guard

It's official. WAAS has a newly elected management team.

According to the Academy's new bylaws, the Board of Trustees elects a Chairman from among its current members and designates one of its officers as CEO. The new bylaws specify that the President, Secretary General and Treasurer will be elected directly by the Fellows from among the current Trustees.

At the Board meeting in New Delhi on November 12, 2011, the Board unanimously elected **Garry Jacobs** as Chairman of the Board and Chief Executive Officer of WAAS. On December 6th, nominations closed for election of the three other Officers. Three candidates were unanimously nominated by the Fellows and have been declared elected: **Ivo Šlaus**, President; **Zbigniew Bochniarz**, Secretary General; and **Robert J. Berg**, Treasurer.

[A hearty welcome to the new WAAS management team.](#)

Heitor Gurgulino de Souza, *Chair, WAAS Election Committee*

Peace and Security

Revolution in Human Affairs



The spread of democratic governance and human rights, the rapid economic growth and growing disparities between rich and poor, and the explosive spread of communications technologies to the masses have spawned a silent revolution that is rapidly reshaping global society – what former WAAS President **Harlan Cleveland** termed “the Revolution of Rising Expectations”. This revolution releases enormous social energy

which can lead to greater dynamism and more rapid progress. But what happens when the energies released find no positive outlet for constructive expression? What happens when youth with rising expectations enter a world without sufficient employment opportunities and when the poor become passive but firsthand witnesses through the mass media to the lavish life styles of the consumer classes?

These are questions which **Jasjit Singh** has framed for study in the WAAS project on [Revolution in Human Affairs](#), launched last February at a seminar in Delhi and presented for further exploration at the Delhi GA this November. His startling and timely conclusion is that when these rising expectations are frustrated and prevented from positive expression, they build up as tension beneath the surface until they gain sufficient pressure to explode into action, as evidenced by the Arab Spring, the Occupy Wall Street Movement, the rise of fundamentalism, and the spread of Naxalite violence in the poorer rural parts of India.

Examining history as well as current affairs, this helps us understand why France underwent a violent revolution in 1789, while England underwent more gradual evolutionary change; how greater freedom and higher levels of education can ignite social tensions; and how growing prosperity can be associated with growing discontent. Recognizing the essential role of employment in positively absorbing these social energies is one of the reasons that since 2005 India has operated the largest employment program in history. This perspective poses an urgent policy question for the Academy to examine: “How can the Revolution of Rising Expectations be vectored in a positive direction for greater constructive, peaceful and productive outcomes?”

Read more in *Cadmus*, “[Revolution in Human Affairs: The Root of Societal Violence](#)” by Jasjit Singh and “[Rising Expectations, Social Unrest & Development](#)” by Ashok Natarajan.

Outlawing Nuclear Weapons



Abolition of nuclear weapons (NWs) is a strategic objective of the Academy. In his presentation to the General Assembly, **Winston Nagan** delineated the role of law in achieving this goal.

The perspective of the professional legal culture today is not sufficient to challenge conventional political wisdom about human rights and global security. International law is not just a mechanical reading of preexisting laws. It is also about the affirmation of values which are its very foundation. NWs defy the fundamental principle of humanitarian law. In his landmark opinion in 1996, Judge C.G. Weeramantry of the International Court of Justice rejected the legality of any usage of NWs whatsoever.

Winston poses the critical question: How effective can the structure and the processes of legal discourse be in influencing the critical constituencies that still affirm an important role for NWs and delivery systems in the management of global security priorities? Though nations cite military necessity as the rationale for the usage of NWs, their justification is dubious. The serious threats posed by the use of NWs can never be confined to a single nation-state or to purely military objectives. They invariably target large civilian population centers. The consequences of their use are likely to be transnational. Therefore, any usage must be regarded as a crime against humanity. Now is the time for the ICJ to unequivocally declare the illegality of these weapons.

The disaster at Fukushima, Japan, raises parallel questions about the threat presented by nuclear energy plants. The fallout from a nuclear accident could well cross national boundaries and affect civilian population centers in other countries, violating traditional notions of national sovereignty and raising fundamental questions regarding the sovereign rights of humanity as a whole. The real risks of nuclear accidents and potential cost of remediation make nuclear power the costliest form of energy. These critical issues justify a reappraisal of alternative energy sources and the benefits of closing existing nuclear plants in other countries, as Germany and Switzerland have recently announced.

Share your ideas on [new and on-going programs](#)

Those interested to participate in WAAS projects, contact programs@worldacademy.org

Law and Governance

Theory of Social Development



The relationship between law and social development is complex and poorly understood. Law plays a crucial role in the development of society, and social development drives the evolution of law. In his presentation at the Delhi General Assembly, **Håkan Hyden** stressed that a theory of law is essential to comprehend the connection between the development of law, the development of society, and the phases through which each of them passes. There is a pressing need for research on this relationship.

Social development, according to Håkan, is a movement from the collective to the individual orientation. This expresses in law as a shift in focus from externally imposed authority to self-regulation, which increases the significance of contract as a legal instrument. The social movement unfolds as a progression of waves, which can be depicted as a series of “S curves”. Each stage of transition is characterized by contradictions that appear between the old and the new forms of organization, leading to rising tensions and the transformation of energies.

In contrast, Håkan depicts the development of law as an interplay between opposing pairs of forces, static and dynamic elements, giving rise to a locomotive effect. Differences in speed and rhythm between the social and legal processes give rise to problems and incongruities, hindering the advance of society until the legal framework gradually evolves in accommodation to the new cycle of social development. See [Håkan's full paper](#) for details.

In Search of a New Rule of Law Paradigm

The principles and practice of law are a composite of multiple forces—the force of past precedent, established custom, and accepted tradition; the force of present political, economic and social power; and the force of emerging aspirations and ideas striving for acceptance. At any point in time, law consists of a more or less precarious balance between the past and the future. It is both a condition and a consequence of social development. As a social organization, law is a mechanism for channeling social energies. It reflects the prevailing values of society and the precise points at which there is contention between conflicting values. Thus, legal choices go to determine what to conserve, what to bury, what to affirm and what to enhance. Since values are changing rapidly in the modern era, social change leads to changes in the interpretation and application of law over time.

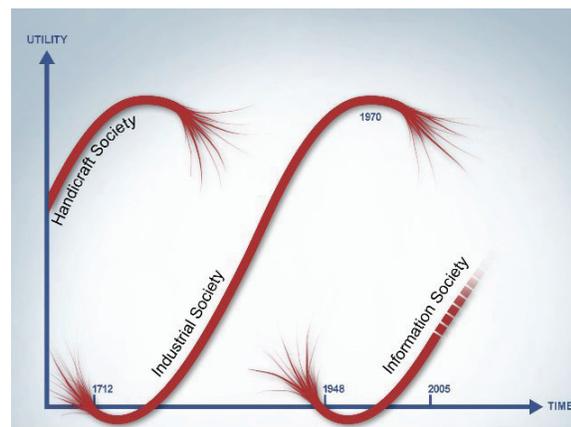
The governing principles of law are progressively shifting from a conflict paradigm of naked coercion to the exercise of authorized social power influenced by higher values. The early

‘law’ of humanity was the law of the jungle, survival of the fittest, might is right. The stronger imposed their will on the weaker, reinforced by force of arms or popular support. Hereditary rule became prevalent as a means to ease the transition from one leader to the next, avoiding frequent challenges to legitimacy and wars of succession. Law evolved as an instrument to manage the politics of conflict, to replace violence with understandings reflecting authorized basic decisions about social order. Coercive rule based on force of arms was progressively replaced by notions of authority based on a written text and backed by the implicit threat of coercion. Money too played a central role in the transition from violence to social order. As governance and law evolved, coercion gave way to social custom, conscious legislation and jurisprudence as the dominant means of managing conflict and resolving disputes. This transition from violence to law continues today in both national and international contexts. Law involves an implicit acceptance and internalization of authority by the collective, and establishes a major

expectation about the shaping and sharing of human values. Unless the community accepts the authority of its rulers and the laws they pronounce, the rulers may be compelled to resort to coercion to maintain themselves. Thus, the ultimate determinant of law will be the major expectations that the community holds about the exercise of authority and control in the common interest. The individual plays a key role in this process. This has profound implications for the evolution of both national and international law and emerging expectations of justice and value.

The search for a new rule of law paradigm must be driven by an approach which integrates disparate discourses, and incorporates scientific views of change and a global view of justice, fairness and human dignity. The work of former WAAS President **Lasswell** and Fellow **McDougal** is the closest approach that is compatible with the fundamental values and interdisciplinary orientation of the World Academy and can serve as a useful starting point for a WAAS project.

Winston Nagan and Garry Jacobs



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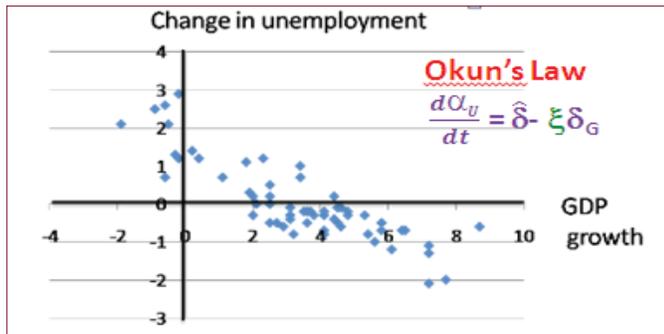
New Economic Theory

Need for a New Paradigm in Economics



The world needs a paradigm shift in economics similar to the one physics experienced a century ago, when quantum mechanics and relativity theory were formulated to address phenomena not explainable by Newtonian mechanics. This was the central thesis of **Roberto Peccei** in his presentation on November 11.

The emergence of a paradigm change in Physics came from understanding the limitations of the existing theories, and then inventing new concepts appropriate for these new regimes. A similar reassessment is needed in economics today.



The central issue facing the world today is that unbridled population and economic growth are untenable in a finite world. This calls for development of legal and social instruments which will provide solutions to our present predicament outside of present economic theory. New economic theory is needed based on sustainability rather than growth.

Economics is still based on many of the concepts formulated in the time of Adam Smith which were applicable to the transition from an agrarian to an industrial economy. We need new theory that incorporates concepts of biocapacity and sustainability. Okun's law describing the relationship between growth and employment is really a tautology, rather than a valid theory.

New theory must also address the true role and purpose of financial markets to support human well-being, rather than speculative activities driven by greed, and promote investment in the real economy, creation of new jobs and equitable distribution of wealth.

To see Roberto Peccei's Delhi presentation [click here](#).

See his article on "[Rethinking Growth: The Need for a New Economics](#)" in *Cadmus Issue 3*.

Paradox of Value & Uncertainty



The question of value is central to the formulation of new economic theory. In his presentation at the GA, **Orio Giardini** called for a radical reassessment of economic value based on the real purpose of economy, which is maximizing human welfare, not maximizing economic growth or monetary wealth.

These apparently synonymous terms are often in direct conflict for a number of reasons:

1. The confusion between flow and stock blinds us to the fact that increasing economic activity can be and often is achieved by consuming non-renewable resources that reduce real wealth even as they increase economic activity.
2. Measures of economic growth neglect the concept of negative value. Growth may result in greater destruction of real wealth than it creates. Are higher levels of military spending and environmental remediation really indications of rising human welfare?
3. Real economic value has to take into account the utilization value of goods and services over time. In a modern service economy, true cost and value can no longer be fully defined at the point of sale. R&D expenditure, warranty and liability costs may occur years before or after the sale transaction. Many services such as health care are delivery systems that we invest in to provide for on-going service and security over time, and cannot be properly valued at the time of sale.
4. Important aspects of human welfare do not fall within the monetarized economy, such as home care for children and the elderly. We now spend \$60 billion a year on bottled water which formerly was a virtually free commodity. The monetarization of drinking water is at least partially a result of declining quality of life, not progress.

More profoundly, the evolution from the industrial to the modern service economy has led to a paradox of uncertainty. Uncertainty is the source of doubt and insecurity which human activity strives to minimize. At the same time it is a rich creative cauldron of untapped potentials from which new wealth is constantly emerging in the form of new aspirations, products, services, technologies, organizations, etc. The key to future prosperity is to learn how to tap the creative value of uncertainty.

For a detailed discussion of these issues, see "[The Evolution of Wealth & Human Security](#)" in *Cadmus Issue 3*.

Share your ideas on [new and on-going programs](#)

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Full Employment

Global Employment Challenge

Employment is the economic equivalent of the right to vote in democracy. Without access to employment opportunities, citizens are deprived of the essential condition for survival and well-being. This was one conclusion of the Academy's highly successful, multidisciplinary e-conference on the [Global Employment Challenge](#) which examined the economic, political, legal, social, technological, ecological and psychological factors impacting on job creation.

After presenting the conclusions of the GEC at a Club of Rome conference in Bern late last year, WAAS has been exploring fresh insights into a comprehensive social theory of employment in collaboration with **Ian Johnson**, the Club's Secretary General. Their conclusions have been published as a series of articles in recent issues of *Cadmus* by Fellows [Winston Nagan](#), [Ashok Natarajan](#), [Garry Jacobs](#), [Ivo Šlaus](#), and [Patrick Liedtke](#). In addition, WAAS has had discussions with the European Commission and ILO to explore the potential for collaboration to evolve fresh strategies to address this crucial issue.

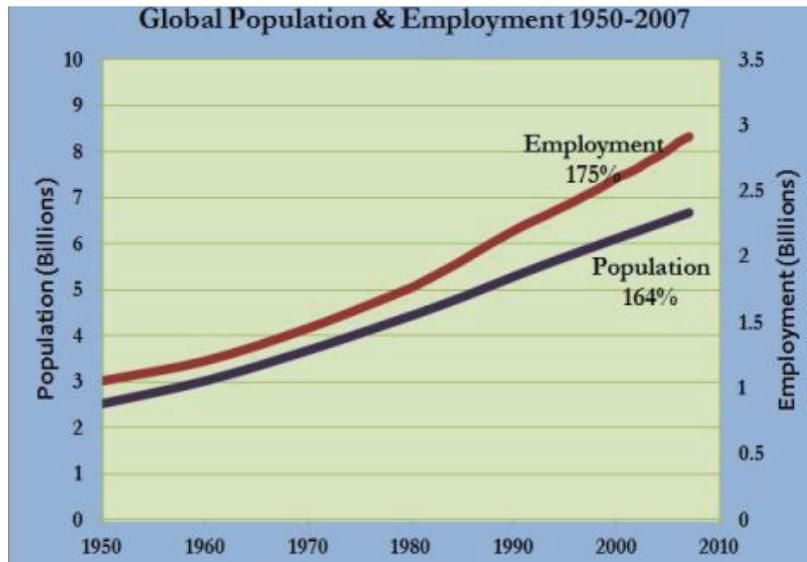
A remarkable fact emerged during a session on "Creating Sustainable Work" at the Delhi GA, in which **Orio Giarini**,

Global Employment Model

Employment has been traditionally regarded as a problem that falls within the purview and sovereignty of national governments. Like the dangers of nuclear weapons proliferation, the international financial crisis and global warming, recent events highlight the fact that employment now represents a global challenge which can only be fully understood and effectively addressed by a global approach.

Over the past six months WAAS and the Club of Rome have conducted numerous discussions to formulate the outlines of a *Global Theory and Model of Employment*. At a meeting in Dubrovnik in September, **Ivo**

Ivo and Garry were speakers. In spite of the challenges posed by the population explosion, automation and globalization, employment growth has, over the past six decades, outpaced rapid population growth. This fact suggests that the short term gloom generated by the recent financial crisis and global recession need not result in a perpetual job crisis, provided countries act decisively to remove the destabilizing and destructive impact of unregulated financial speculation. Introduction of a Tobin Tax on international financial transfers can be an effective means to redirect a portion of the 216 trillion dollars in global financial assets into productive investments in the real economy.



Three conclusions seem inescapable. First, high levels of unemployment, especially youth unemployment, are incompatible with national and global peace and social stability. Second, the social costs of high levels of unemployment in terms of rising levels of welfare expenditure, crime, violence and terrorism are greater than investments needed to remove this scourge. Third, a permanent solution requires recognition of employment as a fundamental human right and the restructuring of economic policies to maximize human welfare.

Šlaus, Ian Johnson, Orio Giarini and Garry Jacobs identified more than [100 significant factors and trends](#) impacting on global employment markets, including population growth, energy and ecology, immigration, globalization of trade and financial markets, rising levels of education, faster technology dissemination, law and human rights, social organization and changing social attitudes.

At the GA, Garry presented an [overview of a proposed project](#) to develop a global theory and model of employment in collaboration with organizations such as the Club and ILO.



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Being a World Academy composed of members drawn from the arts, sciences, humanities, business, public administration and civil society poses fundamental questions. How can WAAS distinguish its work from that of other academies? Is there really a common meeting point between art and science? What original contribution can WAAS make to the world's thought? How can it enhance the effective power of knowledge for the benefit of humanity?

At the New Delhi General Assembly, Fellows explored facets of a new program framework, developed by the Strategic Planning Committee (SPC), which seeks to answer these questions in the affirmative. Rather than distinguish itself by confining its focus to particular disciplines, issues or geographic area, the framework is an attempt to formulate a comprehensive and integrated perspective of knowledge inclusive of all disciplinary perspectives and applicable to social problems and opportunities in all fields.



Figure 1 Reliable Knowing



Figure 2 Comprehensive Approach

The core of the framework is a human-centered conception of what constitutes reliable knowing, based on the Foresight Model recommended to the SPC by **Ruben Nelson**. In his presentation to the GA, **Garry Jacobs** explained how this conception applies to WAAS' projects on [New Economic Theory](#), [Individuality](#) and [Limits to Rationality](#). **Pushpa Bhargava** pointed out that a human centered perspective naturally incorporates ecology, since the survival and full development of humanity depends on its capacity to evolve in harmony with the environment.

Ivo Šlaus emphasized that the program framework also includes a comprehensive approach to what are often perceived as distinct and separate problems as shown in figure 2. This approach is illustrated by the Academy's project on [Revolution in Human Affairs](#), which focuses on the linkage between peace, security, democratic freedom, justice, equality, economic prosperity, crime, and terrorism.

Recognition that social reality is an integral and organic whole composed of multiple dimensions or aspects naturally leads us to examine each issue from a multi or transdisciplinary framework in an effort to capture insights into the total reality of which each is a vital component, as depicted in Figure 3. To illustrate, **Winston Nagan** pointed out how the Academy's study of employment incorporates legal, economic, social, political, psychological, demographic, technological, ecological and cultural factors.

The framework broadly organizes global issues concerning governance and development under a number of inter-related trust areas: Effective Democracy, Global Security, Ecological Resilience, Development, Educational Advancement, Equitable Prosperity and Cultural Enrichment.

For more information, see the presentation and detailed discussion of the Academy's [Vision, Mission and Program Framework](#) and the [Report on the Academy's Recent Program Initiatives](#).

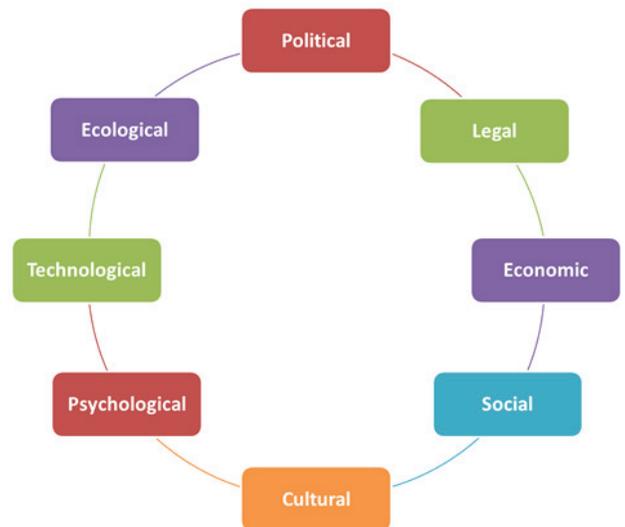


Figure 3 Multi & Transdisciplinarity

Seed-Ideas

Synthesis of Knowing

The WAAS Program Framework is based on the view that each of the disciplines of art, science and humanities has a valid contribution to a complete perspective on any issue. Reliable knowing is inclusive and reconciles diverse perspectives. That is with regard to different disciplines. The same is true of different nations and cultures. Each brings a unique perspective to the understanding of knowledge and solution to problems.

For instance, one could argue that Greece gave rise to pure intellectual reflections on ethics, society and nature. Rome gave birth to modern conceptions of law and social organization. The scientific outlook was born in Europe and most of the profound theoretical discoveries were made by Europeans. America's unique contribution has been the practical translation of scientific knowledge into technology and organization expressing through a spirit of individualism (e.g. Ford, Apple and Amazon). Japan has excelled in evolving knowledge that is founded on values of social harmony, beauty and honor. China has developed intellect and administration to an extraordinary degree based on communal values. India's focus has been on the inner law and essential reality governing processes, rather than on external mechanisms. It applies analogy, metaphor and intuition to overcome the limitations of logical thinking.

Some of these examples may be more appropriate than others in bringing out differences in perspective. The scope for differentiating perspectives is not limited to continent-wide generalizations. A series of books by a Spanish diplomat written early in the 20th century elegantly bring out the differences in thought and perspective of England, France, Germany, Spain, etc. Churchill said that the British have an anathema for analyzing anything from first principles, an approach more characteristic of the French who give greater weight to pure ideas. Such variations exist in other regions as well.

Instead of arguing who is right, it is rational to base ourselves on the premise that each of these perspectives represents a valid aspect of knowledge. A comprehensive way of understanding and acting would need to take into account many or all of them. The best solution to humanity's problems and to arriving at a global consensus would be founded on a wider conception of knowing than any one country or region affirms today. An approach based on this premise could have immense practical value for the evolution of global governance.

We would like to propose that WAAS organize a project to identify the varied ways of knowing and different conceptions of what constitutes knowledge according to different cultural traditions and attempt a synthesis of the world's perspectives. This might be a first concrete and original step toward evolving an informal World University as our founders envisioned in the Academy's charter, based on a truly global conception

of reliable knowing. We might start publishing articles on different cultural perspectives of knowing in *Cadmus*, organize a conference (Library of Alexandria would be the perfect place) or a series of conferences and e-conferences, and ultimately publish a book presenting not only diverse views but an attempt at a *Synthesis of Knowing*.

This project ties in closely with the project on [Limits to Rationality](#) and would embrace all fields of art, science and humanities. It could unite the work of many Fellows and attract the interest of other individuals and organizations.

Integrating Art & Science

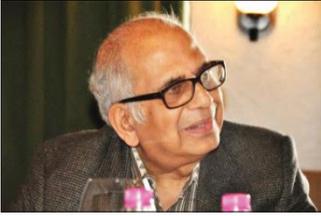
Solving and overcoming the numerous problems and threats we face today require understanding, and as Blaise Pascal wrote, we understand both with our brain and our heart. Understanding and creating are two centers of human activity. Science and art are examples of the two organized systems of research, understanding and creativity. Our Academy – World Academy of Art and Science– strives for global welfare by integrating art and science. Global welfare is our goal; art and science, our tools.

Weisskopf claimed that science progressed when instead of asking the most general questions, it focused on narrow, seemingly simple questions. That was the root of many scientific disciplines. Today, most of the problems and threats we face require multidisciplinary, inter-disciplinary and trans-disciplinary approaches. The world needs unity of science – consilience, as E.O. Wilson entitled his book. Many national and regional academies are organized in sections of scientific/scholarly disciplines. World Academy focuses on the problems that the world faces: peace, governance, ecology, new economic theory, global employment and human capital. Their solutions require ideas, initiatives, proposals, projects, policy-making, decision making and actions.

World Academy encompasses researchers, artists, business leaders, policy and decision-makers from many countries and cultures. Every culture has contributed to art and science, as reflected in our motto *Unity in Diversity*. Our Academy endeavors to achieve sustainable global welfare and equitable development based on programs enriched by cultural diversity, by approaches integrating scientific and artistic perspectives and, most importantly, by wisdom cumulatively augmented through generations. Creation of such programs is clearly a bottom-up approach, but also a cumulative approach where leadership in thought generated from a variety of cultures leads to a united action for sustainable global welfare.

Garry Jacobs and Ivo Šlaus

Barriers to Peace



In their landmark report, *Limits to Growth*, the Club of Rome awakened global public opinion to the environmental hazards and constraints to uncontrolled economic growth and consumerism.

Equally urgent and important are the threats and barriers to peace that threaten to undermine the remarkable gains of the last half century. Traditional threats have faded, while new ones have emerged that are even more insidious and difficult to contain. The Cold War is over, but the 23,000 remaining armed nuclear warheads represent an incentive for nuclear proliferation, a tempting target for terrorists, and an intractable barrier to democratization of the UN.

Rising levels of economic inequality destabilize economies, spread disenchantment and generate angry resentment that could explode into violence anywhere anytime. Rising levels of unemployment are associated with rising levels of social unrest, crime, drug traffic, religious fundamentalism, and are a source of new recruits for terrorist outfits. Widespread corruption in politics, public administration and the judiciary undermines democratic institutions and subverts efforts to address the basic human needs of the masses. Low levels and inadequate quality of education deprive hundreds of millions of young people of the opportunity for social advancement. The absence of basic human rights, both political and economic, absence of basic needs such as water and power, the absence of legal and judicial protection – these and numerous other factors – pose serious barriers to the peaceful development of global society.

The World Academy can make a significant contribution to global society by launching a project to identify and examine these common threats to humanity and to evolve the outlines of a global master plan for banishing the serious barriers to global peace. I invite interested Fellows to share their ideas and participate in a WAAS project to produce a report on this important topic. [Contact us here.](#)

Pushpa Bhargava

Impact on Policy-makers

I am pleased to see WAAS is concerned with creating impact on policy makers at the highest level, as indicated by your meeting with President Barroso of the European Commission and the interesting articles in the latest issue of CADMUS. For WAAS, communication with policy makers is extremely important. Congratulations to WAAS/Club of Rome/Pugwash as they step into a new era! As the world looks today, I am convinced a federation of some of the best research institutions in “all” disciplines combined with the operational capacities of corporations has great opportunities, especially if electronic communications can be used for the evolution of such a network.

Sam Nilsson

Blue Economy

As discussed in my [presentation](#) and [webcast](#) for the WAAS Global Employment Challenge, *The Blue Economy*, a report to the Report to the Club of Rome, offers 100 strategies for generating 100 million ecologically-friendly job opportunities in 10 years.



In September 2012, The Blue Economy team will host in Berlin the “Blue Economy Summit of Entrepreneurs”. We are inviting 100 innovators together with about 1,000 entrepreneurs who have already taken up one or more of these projects to translate into local initiatives around the world.

This is a unique opportunity to connect scientific research to concrete projects and immediate challenges faced by the world (water, food, health, housing, energy, jobs and education with ethics).

WAAS can play an active role in promoting practical solutions to employment and ecological challenges by conducting a survey to identify obstacles to bringing these innovative business models to the market, the government action needed, the jobs generated, the skills and the education programs required, the type of businesses that have the greatest potential, jobs which are based on the local economy, jobs which rely on the globalized economy, etc. The experience of WAAS in mobilizing its Fellows to vote in the referenda and elections could be applied for a significant scientific research project.

Gunter Pauli

An invitation to thinkers

The world's current crises clearly demonstrate that more of the same is just not good enough.

**WAAS is looking for original
Seed-Ideas for the 21st Century
– ideas that can change the world.**

Post your ideas on www.Seed-ideas.org website or send them to seed-ideas@worldacademy.org

A selection will be chosen for publication in the next Newsletter.

Focusing on New Sciences



In the last half century a new range of sciences has emerged. I suggest that WAAS either contribute to or reflect on new scientific methodologies to better understand human society and its evolution. Page 2 in [this document](#) has a graphic from Wikipedia with my highlights in blue. In principle, the new sciences are very interesting to look at. The science of Dynamics Systems Theory was applied in the first report to *Club of Rome* (1972); the blue full lines in the graphic refer to a

project in start-up phase, and to the application of a new Science of Networks and a Science of Complexity to issues of sustainability (2011).

Sustainability is a very complex matter. Many initiatives in climate change and ecology lack coherence and long term vision. Political decision-making processes are hindered by the absence of a 'grand unified theory' on sustainability for human civilization. These new sciences offer new approaches for addressing vital concerns. Another failure like the Copenhagen Climate Summit must be avoided in future.

Scientific progress made in the fields of self-organization and autopoiesis evokes new philosophical questions about the relation between physical structures and the mind like 'what is life?'

The impact of science and technology on the Internet and related innovations will have a dramatic influence on society and on how knowledge will be transmitted.

Systems thinking as mentioned in the chart (see document), can also be applied to address problems related to new economy and social evolution and may inspire innovative thinking patterns.

Raoul Weiler

*Invitation to participate in WAAS programs on
Emerging Individuality & Limits to Rationality as part of the*

International Conference on

Humanities and Contemporary World

June 7-9, 2012 – Podgorica, Montenegro

Hosted by Montenegrin Academy of Sciences and Arts & Organized by



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For more information, [click here](#).

Themes for Projects on Law

The following themes contributed by Fellows are intended to stimulate thought & discussion on possible new WAAS projects.

1. **Law & Social Development:** Law, freedom and human rights play a fundamental role in the process of social development. An exploration of the theory of law and its relationship to the theory of social development may help us identify the means to leverage the power of law to accelerate development nationally and globally.
2. **Values, Human Rights & Development:** Values and human rights are a driving force for social development. They are not just utopian ideals. Values are the quintessence of society's acquired knowledge about survival and sustained human accomplishment. Furthering the evolution of values is a powerful means to address global problems.
3. **Broadening the conception of sovereignty:** Traditional notions of national sovereignty ignore the sovereign rights of the individual and of humanity as a whole.
4. **European lessons for International Law:** Europe is the closest the world has gotten to a laboratory for global governance. A study of cases before European tribunals may generate significant insights applicable to other regional courts and to global jurisprudence.
5. **Nuclear Energy:** Environmental rights are closely allied to the issue of sovereignty and human rights. If a nuclear power plant explosion crosses national boundaries, what rights do states have against actions by other states that may pose equal or greater dangers to their own citizens?
6. **Law and Economy:** The right to speculate and destabilize financial markets infringes on the fundamental right of other people to employment and economic livelihood. What is the legal basis of the current economy?

Zero growth

Disarmament is and remains one of the big problems. The financial and economic system poses another major problem whose consequences go far beyond the economic and financial domain and might even threaten democracy. Economy today is completely based on growth. But everybody who knows a little bit of mathematics is aware that an ever-growing function (an exponential function) diverges and leads to a catastrophe. In the long run only a society with a stable economy can survive, avoiding periodic big catastrophes. It would be useful to consider the possibility of an economic system with zero-growth.

Herwig Schopper

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Chandana Chakrabarti, Jasjit Singh, Kathryn Foster and Javed Husain



Ashok Natarajan and Chandana Chakrabarti

WAAS Newsletter Issue 2 *Invitation to Contribute*

Fellows are invited to submit content for the next issue on:

- **Articles on Global Issues (250 words)**
- **Program Ideas**
- **Seed Ideas**
- **Upcoming Events**
- **WAAS Activities**
- **News of Fellows**
- **Research Projects**
- **Comments on WAAS**

For comments or contributions, contact:
[WAAS Newsletter](#)



Zbigniew Bochniarz and Nebojsa Neskovic



Orio Giarini and Momir Djurovic



Mikel Vanry, Morley Lipsett and Kathryn Foster



Winston Nagan and Alberto Zucconi

Wanted: REAL IDEAS

Crises are opportunities. This was the theme of an article entitled "[The Turn Towards Unity](#)" in *Cadmus Issue 3*, which pretty well sums up the Academy's experience over the past eighteen months. I recall last February during a gathering of WAAS Fellows in Delhi the sense of amazement we all felt watching on television the unfolding of events in Cairo initiating the domino effect now referred to as the Arab Spring. How fast, how radically things can change when people decide to make them happen! Today, there is no shortage of crises calling for transformation, waiting for people who decide things must change.

A "coalition of the willing" was **Harlan Cleveland's** formula for the evolution of global governance. How aptly it describes the formation of the World Academy fifty years ago. How clearly it defines the most effective strategy for the future evolution of both WAAS and the human community!

One of the clear lessons of recent experience is the fallacy of placing our faith in apparatus and mechanisms – whether it be the machinery of factories, financial markets, bureaucracies or the UN Security Council. It is people who make life better. Our organizations are only instruments intended to serve human needs, which all too often we al-



low to become the masters that enslave us to mechanism. That is a lesson the Academy's Board of Trustees has taken to heart. That is the basis for the new Bylaws which define how WAAS will be governed in the future.

Old theories and models of security, governance, economy and even education are increasingly inadequate and irrelevant in our evolution toward a single world community. The world is in need of new concepts and models, which suggests that the recent experience of WAAS may have relevance to other international organizations and, perhaps, to the world-at-large.

Leadership in thought that leads to action is a phrase aptly adopted to describe the essential mission of the Academy. WAAS' new [Program Framework](#) calls for the formulation of original ideas and perspectives, *Real-Ideas*, which, when projected before the human community, carry an integral knowledge and effective power for self-realization. Individually, our Fellows pursue distinguished careers and serve important institutions. Together, by forging a network of individuals and an umbrella of institutions pursuing common objectives, we have the potential to become a coalition of the willing that can change the world.

Garry Jacobs

Managing WAAS: Achievements & Challenges

Applying the old wisdom, WAAS is converting crises into opportunities for better, more democratic and responsible governance, moving away from a highly centralized vertical management structure to a decentralized flat structure, from top-down actions to bottom-up initiatives driven by Fellows, from discretionary presidential power to transparent Fellows power, from rare every 5-year General Assemblies (GA) and Plenums to frequent meetings. The record-high participation of 190 fellows in the recent referendum, making difficult decisions critical for sustainability, and successful GA & Plenum in New Delhi are milestones of a new

era of the Academy.

The newly elected Board of Trustees (BOT) and Officers have already conducted 6 BOT meetings since June 2011, elaborated new Bylaws, prepared the referendum, GA & Plenum, reorganized committees, instituted a new nomination process, and resolved many problems facing the Academy. In order to continue this revitalizing movement, we need Fellows to take advantage of this openness to join the Program, Fundraising, Nomination Committees, to nominate prospective new Fellows, to take program initiatives in accord with the Academy's mission, and foster cooperation with other organizations at the global and regional level.

The activities of the South-East European Division of WAAS (SEED-WAAS), which has taken many initiatives during the last 5 years and built bridges to North Africa and Middle East, are an excellent example of how decentralization can empower Fellows, reach out to new constituencies and extend the impact of our work. The current WAAS strategy is to support development of regional divisions and use regional conferences as an opportunity for Fellows to meet more often and conduct frequent GAs and Plenums. We hope you will join us in this effort. We count on You!!

Zbigniew Bochniarz



Our New Constitution



WAAS' new bylaws enshrine democratic empowerment, involvement and transparency, core values of the Academy critically needed for the evolution of global governance. They restore power to the Fellows to elect new members and trustees and to call for referenda to decide important issues, based on procedures which this year enabled large numbers of Fellows to actively participate, decide and express their will. Based on experience using them, we intend to fine-tune these procedures and welcome your suggestions as to how they can be improved.

The new bylaws impose on your leadership to be more open, consultative and participative, to distribute authority more widely, and involve more Fellows in management of the Academy. This is essential to build the strength and effectiveness needed for WAAS to make a serious impact on world affairs. At the same time they also impose on all Fellows a greater responsibility to actively contribute to this organiza-

tion. The eminent individuals who established WAAS were not looking to honor themselves. They sought to assemble a group of global citizens concerned about emerging global challenges and seriously committed to making a difference. That is our heritage and our mandate. Your new management looks forward to working with each of you to achieve that objective.

We are delighted that in New Delhi the Board unanimously elected **Michael McManus** as a new Fellow and as Legal Advisor to the Board and the Academy (under a provision in the bylaws applicable when special circumstances are involved). Mike, who is a partner with a large law firm, *Drinker, Biddle and Reath*, provided outstanding service to WAAS in its recent hour of need. We are pleased to have such a distinguished and committed expert as our Legal Advisor.

Bob Berg, Chair, Legal Committee

Retiring from the Board of Trustees



Walter Truett Anderson

A pillar of the Academy for the past two decades, its Vice-President (1993-2000), President (2000-2008) and President Emeritus/Trustee since 2008, Walt is retiring from the Board of Trustees (BOT) as a special

member after leading efforts to restore democratic governance within the Academy, culminating with his chairmanship of the Election Commission last spring. As a political scientist-social psychologist (PhD), futurist and author of numerous books, Walt has been and remains a unique and precious asset of the Academy. He played a central role in organizing three General Assemblies, and in focusing WAAS on abolishing nuclear weapons and the Anthrocephene. The BOT has elected Walt as the Board's Special Advisor with the hope that he will continue his creative work influencing the future generations of WAAS. [Click here](#) for a full bio.



Pushpa Bhargava

Pushpa's quiet wisdom has played a key role in helping WAAS chart a new course of democratic governance. Earlier he organized and hosted the 2008 Hyder-

abad GA. Known globally as an eminent scientist, writer, thinker, institution builder & consultant, he conceived and built the famed *Centre for Cellular and Molecular Biology (CCMB)* at Hyderabad. Pushpa's commitment to addressing issues of concern is illustrated by his notable contributions to a wide range of human endeavors, including history, social analysis and the relationship between science & art. As an active member of the Academy's Standing Committee on Peace & Development, he has participated in numerous conferences focusing on peace, security and the abolition of nuclear weapons. Our deepest appreciation and gratitude to Pushpa for all he has done for WAAS, India and the world. [Click here](#) for a full bio.



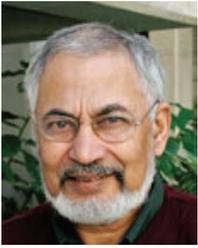
Dan Coates

A remarkable Fellow devoted to contributing to WAAS' vision and to achieving its mission and goals, Dan's role was especially crucial in difficult times.

Though his term as a Trustee is ending, we are sure his enthusiastic efforts to support WAAS will continue. Dan has extensive experience in top management in the Govt. of Canada, the corporate sector and national charities and non-profits. He serves as a corporate director of Canadian based firms and non-profits, and in volunteer & philanthropic roles in Canada and abroad. He is Managing Director of Viewpoint Learning Inc. in Canada. After receiving his doctorate at Cornell, his career included senior management roles as an official in the Canadian federal public service at the deputy minister level and political roles as a senior policy and management advisor. [Click here](#) for a full bio.

WAAS Committee Reports

Program Committee Calls for New Ideas and Proposals



The Delhi General Assembly provided an excellent occasion for Fellows to discuss WAAS' new [program framework](#) and explore ideas for new projects. WAAS' mission is to address the emerging challenges and opportunities arising from the social consequences and policy implications of rapid advances in knowledge. The Academy's program-

ing arises at the interface between social needs, the interests of our large and diverse network of members, and the allied interests of other organizations with which our Fellows are associated. Our objective is to provide ***Leadership in thought that leads to action.***

In Spring 2009, WAAS invited Fellows to contribute ideas and proposals regarding the issues we should focus on as well as specific project proposals, as part of a strategic planning process. Five potential [projects](#) emerged which are now at various stages of project development and implementation. As an example of how our program development process can work, the [Global Employment Challenge](#) began with

a six month e-conference that included 5 webcasts by eminent speakers and presentation of numerous papers exploring important themes for future work. This helped us identify a diverse range of Fellows interested to contribute to the project from different perspectives.

This year the project team has held discussions with other organizations, including the Club of Rome, European Commission and ILO, and is in the process of evolving a detailed proposal for a major project to evolve a [Global Employment Model](#). Click here for [the Report on WAAS' recent program activities](#).

We invite Fellows to contribute new project ideas and proposals. Please post your ideas in [Program Ideas Forums](#), so that we can promote discussion and exchange of views between Fellows on each topic. Project proposals that are more fully developed should be sent directly to the Program Committee for review and further action at programs@worldacademy.org.

The Committee looks forward to hearing your ideas.

Winston Nagan, Chair, Programming Committee

Membership Committee

The achievements of an organization depend on the dynamism of its leaders and the active commitment and participation of its members. Together we have shown that we can bring about radical change for the better in a very short time. Now we have the opportunity to demonstrate just how meaningful WAAS can be to the world around us. Electing your Officers and Trustees is a start, but WAAS needs the involvement of all its members. Here is a short list of ways in which you can participate and help WAAS achieve its mission:

1. Contribute ideas and proposals for new WAAS programming in the [Programs Forum](#) or by writing to programs@worldacademy.org
2. Explore opportunities for collaboration between WAAS and other organizations you have contact with.
3. Actively participate in ongoing [WAAS programs](#) & upcoming events
4. Serve on one of the Academy's management committees to help lead WAAS into the future.
5. Help us with financial contributions and/or fund raising from other organizations.
6. Identify and nominate new Fellows to broaden the disciplinary and geographic depth of our membership and bring in a younger generation to build the future.
7. Contribute articles and news to upcoming issues of the newsletter.
8. Update your directory information. Add a 300 word personal profile so we have complete information on file regarding your interest in WAAS activities, fields of interest, affiliations and networks to which you belong. Upload your latest CV.
9. Help us locate existing Fellows who have changed their [contact information](#).

To build WAAS into an active, dynamic network of 1000 Fellows, we need a new momentum to touch everybody and to convert previously inactive members into active Fellows with strong commitment, a sense of responsibility and ownership. We hope you will be one of them!

Zbigniew Bochniarz, Chair, Membership Committee



Nominations for New WAAS Fellows



One strategic goal of the Academy is to broaden its membership to include a new generation of Fellows representing all disciplines & regions of the world. To be a Fellow of the Academy is to be a member of the global civil society, concerned for the welfare of the increasingly interconnected global civilization with a demonstrated commitment to addressing issues of global importance.

Other important criteria for Fellowship in the Academy are:

1. Distinction or leadership in his or her profession
2. Interdisciplinary interests or accomplishments
3. Record of public service
4. Global perspective
5. The candidate should agree to be nominated and to actively engage in the Academy's work by serving on committees; participate in its projects, programs and fund-raising activities; pay dues set by the Board, and maintain up-to-date information in the membership directory.

In addition to Fellows, the Academy also elects Associate and Junior Fellows. Associate Fellowship is intended for individuals who are involved in the Academy's activities, make significant contributions to WAAS, or show potential for possible future election as a Fellows. Junior Fellowship is for individuals with strong commitment and leadership promise who provide practical service that advances the objectives of the Academy.

Nomination proposals for all categories should contain the following information:

- Directory information: contact information, designation, affiliation(s), areas of interest, specialty and passport photo(optional)
- Curriculum vitae

- Two nominating letters by existing Fellows of WAAS containing a description of the candidate's merits based on the 5 criteria and the reasons for the nomination.

All these documents should be sent to nominations@worldacademy.org. For more information, please see the [nomination procedure](#).

Nebojsa Neskovic, Chair, Nominations Committee

Revitalization Campaign



WAAS Fellows will soon receive a formal call to contribute financial support to our newly invigorated World Academy of Art and Science. The opportunity to invest, known as the **WAAS Revitalization Campaign**, seeks to raise an additional \$25,000 to rejuvenate the Academy and jointly commit to our enduring future.

Revitalization Funds will be used to execute substantive programs on barriers to peace, employment, climate change, governance, new economics and other topics consistent with our mission of "*Leadership in thought that leads to action*"; increase Academy visibility and impact through compelling promotional materials and an upgraded website; expand member services; publish discussion papers and newsletters.

Please join the Trustees and your Academy colleagues in reaching our goal. Contributions at all levels and any time are much appreciated, with gifts of over \$500 prior to March 1, 2012 meriting special acknowledgment on the WAAS website (pending donor wishes).

Thank you in advance for your continued and renewed engagement in and commitment to your World Academy of Art and Science. Our work together is as essential today as at any time in our history.

Kathryn Foster, Co-Chair, Fundraising Committee

WAYS TO MAKE A DONATION TO THE ACADEMY

International Bank Wire

The World Academy of Art and Science
 Umpqua Bank
 3626 Bel Aire Plaza
 Napa, CA 94558, USA

Contact: Michelle Blair
Phone: 707-256-1966

Routing Number: 121141819
Bank Account: 992380709
IBAN: 992380709
Swift Code: UMPQUS6P

Send Check or Money Order to

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 4225, Solano Ave., Suite 631
 Napa, CA 94558
 USA

For Paypal/Credit Card payment info visit
www.worldacademy.org/node/3299

For more information on donations email
donations@worldacademy.org

THE 6th DUBROVNIK SUSTAINABLE DEVELOPMENT CONFERENCE DECLARATION AND COMMUNIQUÉ

15

The 6th Dubrovnik Conference held on September 25-29, 2011 was attended by 415 scientists from 51 countries and all continents. Now :-

RECOGNISING that as the world population passes seven billion there is an urgent need for a world strategy to ensure sustainable development and to combat:

1. the growing financial instability and socio-economic distortion and disaffection
2. the inadequate recognition of the fundamental importance of the opportunity to work for all who seek employment and
3. the continuing deterioration of the world environment

And Noting the highly structured nature of world economic and financial activity

And Further Noting the increasing threat of unemployment resulting from the failure of financial systems and also the failure to adequately offset technologically induced loss of human capital by redundancy

And Further Noting the recent development in the extent of social disaffection by those who perceive a lack of equality of opportunity to share in the benefits of the structured world and the increase in overall wealth and who see this failure of social sustainability as a distortion of sustainable development

And Further Noting the need for policy makers at all levels to incorporate into programs for social and economic development and management the maintenance of education for skills to preserve human capital and to provide social equity

NOW RECOGNISES, HIGHLIGHTS and COMMENDS the work of the UN agencies, the ILO, OECD, IEA, REN Alliance and others seeking to identify measures which can ensure the creation and maintenance of jobs with equality of access

And Further Recognizes the cost to the general economy and to financial capital arising from the underutilized human capital created by unemployment and the net financial cost of this in the welfare budgets of governments and charities as well as its inequity and social disaffection cost

And Further Recognizes the need for all international bodies as well as national governments and policy decision makers in business and the general voting public to recognize the urgency for action to achieve and maintain sustainable development including sustainable employment

And Stresses both the need for the recognition of the three pillars of sustainable development policies being economic, environmental and social, as well as the need to maintain "green growth" by decoupling economic development from damage to the environment and the depletion of finite resources.

And Further Stresses the recognition which must be given in decision making by governments, investors and society to the fact that individuals, national and world wealth includes the sum of human capital without which financial capital is diminished.

NOW RESOLVES as follows:-

We, the representatives of sustainability science:-

URGE

1. Governments and investors to maximize the benefits to all three of the pillars of sustainable development which arise from sustainable energy deployment, particularly distributed generation, in the provision of "green growth", environmental protection and the social advantage of substantial local job creation, both temporary and permanent, from the high multiplier of jobs per unit of RE generation
2. The recognition by all of the importance of the opportunity for people to be employed, and the need to make this a goal in all policy objectives and implementation programs including governmental stimulus packages
3. The recognition of the need to provide assistance for people to participate in employment opportunities.

AND CALL UPON

All of the worlds governments to both access the available sources of scientific knowledge and technological development and ensure that adequate resources are provided for the rapid expansion into new and further research and development in the science of sustainability and its application.

Whilst we undertake to give priority to further research into the means by which social and national harmony may be enhanced by education for work and education for leisure to assist in ensuring that a balance is maintained between work satisfaction and reward on the one hand and sustainably based productive capacity and efficiency on the other hand and to avoid the economic and social losses caused by unemployment and disaffection.

Resolved and Communicated from Dubrovnik and Signed on behalf of the participants by:-

Professor Noam Lior
Chair, SDEWES Centre

International Scientific Committee

Professor Ivo Šlaus
Chair, SDEWES Centre

Scientific Advisory Board Member, Club of Rome

Peter Rae AO

Member SDEWES International Scientific Committee
Hon. Chair, International Renewable Energy Alliance

WAAS Directory

TELL US MORE ABOUT YOU: *Please update your [WAAS Directory Profile](#) with the latest Contact Information, Affiliations, Interest and Fields of Activity.*

PLEASE ALSO HELP US LOCATE OTHER FELLOWS *for whom we no longer have Current Contact Information.*

DO YOU HAVE CURRENT CONTACT INFORMATION *for any of the fellows listed below OR DO YOU KNOW how to obtain it? IF SO, please inform admin@worldacademy.org*

Email Addresses Missing

Ballagh, Robert	Dorfles, Gillo	Kostenko, Yuri	Reiner, Thomas
Bauchet, Pierre	El Hashimy, Mohamed	Kwee, Swan Liat	Silverman, Hirsch
Benitez, Helena	Eraj, Yusaf	Kwon, E.	Springmuhl Silva, Carlos
Berardo, Jose	Erdman, Jean	La Forest, Gerard	Strong, Maurice
Beteille, Andre	Ewusie, Joseph	Lee, Seng Tee	Thomas, Adebisi Babatunde
Blagovolin, Sergei	Falkehag, Ingemar	Lilja, Torsten	Tveit, Martin
Cappelletti, Vincenzo	Fran, Jose	Marosi, Ern	Varga, Imre
Chatel, Bertrand	Friedman, Yona	Mata, Leonardo	Weiz, Charles
Cloudsley Thompson, John	Gyllenberg, Helge	Nagy, Peter	Wilkinson, Timothy
Cohen, John	Hammarskjold, Knut	Nordenstrom, Hans	Wirsén, Claes
Copithorne, Maurice	Hartshorne, Edith	Oda, Nobuaki	Yang, Jae
Coutinho, Elsimar	Hernandez, Max	Oda, Shigeru	Zaheer, Ahmad
de Vicente Gonzalez, Jose	Higgins, Rosalyn	Pignatelli, Paola	Zemtsov, Ilya
Deng, Francis	Holling, Crawford	Quartey, J.	Zhurkin, Vitaly
Dentler, Hans Eberhard	Hutter, Rolf	Rada, Juan	
Dessart, Francis	Joste, Sten	Ramphal, Shridath	

Do you have alternative Email addresses for any of these Fellows?

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