



Sustainable ERM through Principles of Sustainable Insurance

**ICA 2014
Washington DC
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Agenda

- Sustainable Development
- Insurance Industry
- Principles of Sustainable Insurance (PSI)

● Sustainable ERM

Characteristics and Benefits

Framework

Partnership

- ESG Risk: Climate Change
- Actuary's Role
- Questions



Sustainable Development

Development that meets the needs and aspirations of the current generation without compromising the ability to meet those of future generations.

Our Common Future

UN Brundtland Commission Report(1987)

At Macro/Micro level: Reexamine underlying objectives and rationales for economic/financial growth; be clearly aware of other priorities (i.e. protecting and restoring ecological system, enhancing social well-being).

Business Opportunities

“Sustainable Development will constitute one of the biggest opportunities in the history of commerce.” Harvard Business Review Feb/Mar 1997

Trend across a wide range of sectors: Energy, Food, Manufacturing, Investment, Insurance

- Increasing sustainability-conscious investors and customers
- New normal based on sustainability



Cost to insurers from unsustainable development

- Increased natural catastrophes due to anthropogenic climate change
- Inadequate reserve for liability policy

Risks for covering unsustainable products and operation
Evolving environmental liability cost

- Unhealthy life style
- Work related stress

Error and omission

- Unsustainable investment practice
- Excessive debt
- Reputation risk

Sustainable Insurance

Sustainable Insurance is a strategic approach in which all activities in the insurance value chain are done in a responsible and forward-looking way by identifying, assessing, managing and monitoring risks and opportunities associated with **Environmental, Social and Governance (ESG)** issues. A resilient insurance industry depends on holistic and far-sighted risk management in which ESG issues are considered.

UNEP Financial Initiative

ESG Issues

- Environmental

Climate change and extreme weather events, resource depletion, biodiversity loss and ecosystem degradation, water, food, energy, waste, pollution

- Social

Aging population, health and pandemics, labor standards, poverty, living conditions, well-being

- Governance

Alignment of interests, disclosure, transparency and accountability, business principles and ethics, regulations

Insurance Industry ~Global Risk Sharing System

- Individual risk management
- Risk reduction, mitigation and loss control for business and government



- Improve human welfare
- Underpin the economic development
- Reduce pressure on public sector resources
- Reshape risk landscape
- Push the frontier of knowledge on risk

Insurance is Always about **Sustainability!**

Principles of Sustainable Insurance(PSI): Embedding Sustainability into bloodstream of the industry

UN-backed, insurance industry-led Initiative

Launched at Rio+20, June 2012

P1: Embed ESG issues in **decision-making**

P2: **Collaborate with clients and business partners to raise awareness of ESG issues, manage risk and develop solutions**

P3: Work with governments, regulators and other stakeholders to promote **action on ESG issues**

P4: Demonstrate accountability and transparency in public **disclosure on implementing the Principles**

Global Problems and Insurance Solutions



Environmental

- Climate change
- Biodiversity loss & ecosystem degradation
- Water management
- Pollution etc.



Property, EIL, Cat Pool, Alternative Risk Transfer, Indexed-based products



Social

- Financial inclusion
- Human rights
- Emerging manmade health risks
- Aging population etc.



Life/Accident & Health, Pension, Liability, WC, Microinsurance



Governance

- Regulations
- Disclosure
- Ethics
- Information management/privacy
- Alignment of interests etc.



D&O Liability and other commercial liability



Mitigation service and risk management program design

Source: UNEP

Realizing inherent potential of the insurance industry to achieve sustainable development



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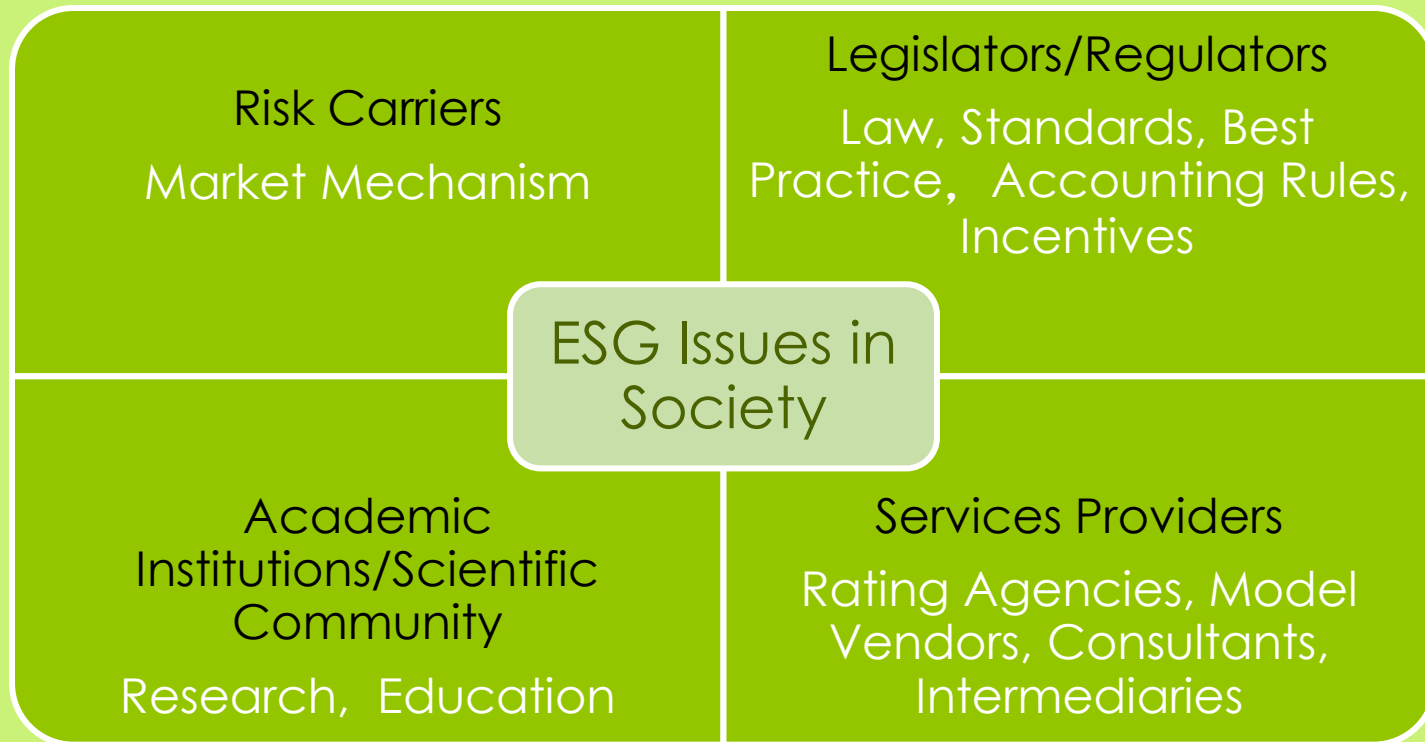
UN Millennium Goals

Need your expertise and creativity

based products

Life/Accident
microinsurance

Adaptation of Principles of Sustainable Insurance (PSI)



Challenges

- Valuation Methodology

Quantify ESG risks and intangible sustainable efforts

- Product Development/Enhancement

Data for pricing/reserving

- Buy-in

Short-term rise in cost structure vs. uncertain tangible long-term financial benefits

Organizational inertia, strategic rethinking

- Regulatory and Government Support

Inclusion of sustainability in solvency measurement

Adequate tax credits and incentives for innovation

Litigation system/Legislation

Challenges Cont.

- Rating Agency

ERM review since 2007

Future: Incorporating sustainability criteria in rating?

- Reporting Guidelines

How to reflect ESG elements ,true aspect of risks, in balance sheet? -> Integrated Reporting, Green Acct

- Collaboration vs. Competition

Industry-wide, cross-sector collective efforts

- Ultimate Risk Management Challenge

Risks that impact the planetary ecosystem

Ignored opportunity: unrealized human potential

Good News: Efforts under way in both academia and industry.

Impact on Actuarial Profession

Many opportunities remain untapped:

What can be insured? What can insurers do?

- Assessment of full spectrum of risks and opportunities -> *holistic view*

- Prudent, responsible and sustainable underwriting and product development

-> *New guidelines and best practice benchmark, regulatory support*

- Quantification that internalizes tradeoffs between present and future

-> *Innovative integrated methods*

- Data collection and knowledge of risk

-> *Technological improvement, R&D efforts*

Sustainable ERM Characteristics

What is Sustainable ERM? What is its focus?

Stakeholders

- Shareholders, clients, customers, employees, regulators, rating agencies, NGOs and general public
- Silent stakeholders: future generations and environment

Values

- Economic value and broader values of equity, justice and long-term sustainability

Capital Management

- Economical capital, ecological capital and human capital

Sustainable ERM Characteristics

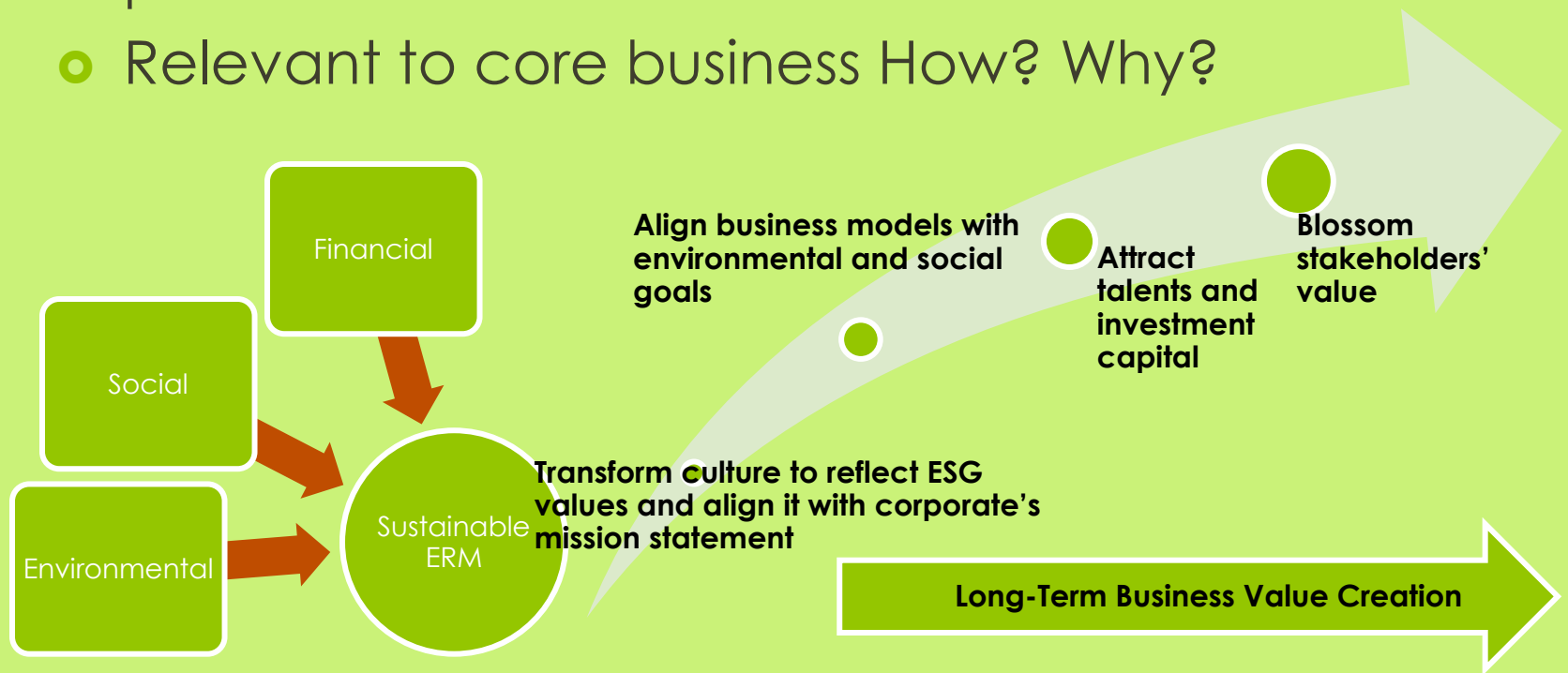
Enlightened value creation

- Expanded view of ERM and SRM
- Include non-monetary measures of well-being: happiness created and sense of security delivered
- Workplace that cultivates good qualities, inspires growth and realizes each employee's unique potential



Sustainable ERM Benefits

- Triple Bottom Lines: **People, Planet, Profit**
- Improved corporation's risk profile through superior environmental and social performance
- Relevant to core business How? Why?



Sustainable ERM Benefits Cont.

- Incorporate ESG issues to promote a **Long-Term** view
- Benefits manifest in the Future:

Enhance corporate's value by lowering cost of capital

Increase capital efficiency

Improve Corporate Social Responsibility

Create sustainable value through aligning business activities with the broader objectives of society



Culture

- Collective behavior led by senior management
Nurture a dialogue on sustainability across the firm
Revitalize mission statement and engage employees
- ESG workshops to establish holistic thinking
Education on sustainable development, global citizenship,
ERM at the individual level
- Work environment
Green building, interior design, art, eco-operation
Culture of human rights (especially “third dimension”)



Risk Identification

- Identify risks by ESG category
- Risk knowledge: research emerging risks and share knowledge with stakeholders

E.g. Allianz Centre for Technology, Munich Re Geo Risks Research, Willis Research Network

- Multidisciplinary team in risk assessment
 - > Risk ranking based on likelihood and severity metrics
 - > Simple, intuitive and communicable risk indicators
- Risk identification process for enterprise and the society
 - > New markets and opportunities

Risk Quantification

- Build and use diverse tool sets
 - Develop deterministic risk scenarios on ESG issues and calculate impact on baseline company value
 - Explore Prospect Theory for pricing and capital management
 - Adopt far-sighted innovations and risk metrics
- Factor cost of negative externalities
- Sustainability is about time-horizon
- Enterprise value over a longer time horizon
- Technical partner

E.g. Index-Based Insurance Products.
Global Index Insurance Facility (World Bank, European Commission)

Risk Decision-Making

- Incorporate sustainability scorecards and ESG metrics
- Embrace ESG issues as part of strategic and operating fabric of day-to-day operation



- Understand risk psychology: Plural Rationality (Ingram, Thompson)
- Open the door to new opportunities through partnership

E.g. Asset Management by Principles of Responsible Investment

Risk Messaging

- Improve stakeholder dialogue

Engagement with all stakeholders

- Change compensation plans to reflect ESG commitments
- Provide multi-period metrics to support business performance analysis
- Use advanced analytics to improve reporting

In 2011 53% of S&P 500 Companies issued sustainability report (G&A Institute 2012)

Tools/Guidelines available: Carbon Disclosure Project (CDP), Global Reporting Initiative (GRI), International Integrated Reporting Council (IIRC), AccountAbility, Sustainability Accounting Standards Board (SASB), ISO26000, UN Global Compact Ten Principles, etc.

Governance

- ESG awareness at Board level
- Form business approach to risks from both strategic and ethical perspective
- Translate PSI into business model
- Create an infrastructure and system to incorporate sustainability measures/goals into ERM
- ESG Advisory Group led by Chief Sustainability Officer

Team consists of people with comprehensive knowledge of environmental, social and economic aspects of the company's operations and impacts

Successful Sustainable ERM Program through Partnership

Benefits from business-NGO partnership:

- Collaborate with non-competitors

Leverage skills and perspectives not available in the organization

- Enhance brand value and ESG benefits
- Improve ESG performance
- Provide external push to achieve a long-term vision
- Build mutual trust and respect

Basis for a well-functioning organization and the society in general

E.g. Implementing government-sponsored scheme for low-income families (Tata AIG General Insurance)

Climate Change: Impact on Insurers

- Property
- General liability, umbrella/excess policies
Human-induced global warming and anticipated litigation
- Directors and Officers liability
- Reputation risk
- Regulatory risk
- Life and health
- Political, economic risk
Regional instability
- Our very existence: Are we close to the tipping point?

Source: Anderson (2005) Corporate Survival: The critical Importance of Sustainability Risk Management

E.g. *Grow Africa Partnership*

Swiss Re with Oxfam America, UN Food Programme

Horn of Africa Risk Transfer for Adaptation (HARITA) project

** New Market Development*

** Risk Management Tools in Rural Areas*

** Innovative Agriculture Insurance*

to cover weather risks





Actuary in the 21st Century

Switch between Knowledge and Value
Risk Expertise on ESG Issues as Core
Competency

Leadership Opportunities

Contribution to Global Community

Catalyst for Culture Transformation



At its heart, Sustainability is the work of constructing a society that accords highest priority to the dignity of life – the dignity of all members of present and future generations and the biosphere that sustains us.

Daisaku Ikeda

Our Values, Beliefs and Actions Can Shape a Sustainable World

