



SAMVAD

Igniting Thoughts of Tomorrow

Climate Risk Management

We Chat

Narayanan P.S

VP and Head - Sustainability
WIPRO



Featured Article

Green Supply Chain Management

Also Read

Climate Change

An Economic and Management Perspective

S.E. MANDALRE
we school
Welingkar Education

December 2015



OUR VISION

“To nurture thought leaders and practitioners through inventive education”

CORE VALUES

Breakthrough Thinking and Breakthrough Execution

Result Oriented, Process Driven Work Ethic

We Link and Care

Passion

“The illiterate of this century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.” - Alvin Toffler

At WeSchool, we are deeply inspired by these words of this great American writer and futurist. Undoubtedly, being convinced of the need for a radical change in management education, we decided to tread the path that leads to corporate revolution.

Emerging unarticulated needs and realities need a new approach both in terms of thought as well as action. Cross disciplinary learning, discovering, scrutinizing, prototyping, learning to create and destroy-the mind's eye needs to be nurtured and differently so.

WeSchool has chosen the ‘design thinking’ approach towards management education. All our efforts and manifestations as a result stem from the integration of design thinking into management education. We dream to create an environment conducive to experiential learning.

Dear Readers,

It gives me great pride to introduce Samvad issues every month. Our Samvad team's efforts seem to be paying off and our readers seem to be hooked onto our magazine. At WeSchool we try to acquire as much knowledge as we can and we try and share it with everyone. I sincerely hope that Samvad will reach new heights with the unmatched enthusiasm and talent of the entire Samvad Team.



**Prof. Dr. Uday Salunkhe,
Group Director**

Here at WeSchool, we believe in the concept of AAA: Acquire Apply and Assimilate. The knowledge that you have acquired over the last couple of months will be applied somewhere down the line. When you carry out a process repeatedly it becomes ingrained in you and eventually tends to come out effortlessly. This is when you have really assimilated all the knowledge that you have gathered.

At WeSchool, we aspire to be the best and to be unique, and we expect nothing but the extraordinary from all those who join our college. From the point of view of our magazine, we look forward to having more readers and having more contributions from our new readers.

Samvad is a platform to share and acquire knowledge and develop ourselves into integrative managers. It is our earnest desire to disseminate our knowledge and experience with not only WeSchool students, but also the society at large.

Prof. Dr. Uday Salunkhe,
Group Director

OUR VISION

“To facilitate exchange of ideas that inspire innovative thought culture”

MISSION

To Dialogue

To Deliberate

To Develop

To Differentiate

As the student magazine of WeSchool, Samvad is greatly inspired by the words of Alvin Toffler backed by a strong vision of facilitating exchange of ideas that inspire innovative thought culture. Samvad is a platform for the next generation leaders to bring forth their perspective on management to the world and gives the readers an opportunity to learn, unlearn and relearn on a continuous basis.

The team of Samvad is driven by a set of strong WeSchool values which enable us to create a dialogue leading to knowledge gaining and sharing, to deliberate on the information, to develop a sense of creativity and differentiate our minds with innovative thoughts of tomorrow; today.

“Unless we take action on Climate Change, future generations will be Roasted, Toasted , Fried and Grilled!”

- Christine Lagarde, IMF Chief

Dearest Readers,

Greetings from Team Samvad!

It gives me and the entire Samvad Team immense satisfaction to bring to you the latest issue of Samvad on the theme “Climate Risk Management”.

The world is in a new era where climate change and its imminent threat to our way of life influences most of our choices and decisions both at an individual as well as at a national level. Climate change is a challenge to our collective conscience as world leaders and huge corporations are devising ways to counter this looming disaster. With the Paris accord in place and several nations agreeing to make sustainable energy choices the awareness about climate change risks are at an all-time high. Thus, we at Samvad felt that Climate Risk Management is a befitting theme for this month.

This issue addresses various topics related to climate change and the changes happening in our society to cope with this fast evolving reality. Not just nations but even business corporations are actively participating in this drive to significantly reduce their carbon footprint and embrace greener, less harmful technologies. One such company is Wipro which has for long displayed a strong and deep commitment toward this cause. In this issue Mr. P.S. Narayan, VP and Head of Sustainability at Wipro shares with us his own experiences, insights and the company ideology which drives Wipro's sustainable choices and processes.

With this issue we also pass on the baton to a new team that will continue to bring you issues on pertinent themes that affect the community and all aspects of business. Our magazine has always been a team effort and I would like to thank all my wonderful team members and our guide Prof. Jalpa Thakker for entrusting their belief and for their tireless dedication.

I hope you enjoy the read and remember to write back with your feedback and suggestions.

Best Wishes

Anuja Kadam

Editor

Samvad

Team Samvad would like to extend its heartfelt thanks to certain key members of the WeSchool family for their special efforts towards the making of this magazine.

We deeply appreciate the constant motivation & encouragement that our beloved **Group Director Prof. Dr. Uday Salunkhe** has always given us. His vision & result orientation has been the driving force in creating brilliant leaders and making WeSchool a name to reckon with, not only in India but also globally. His focus on the core values of Passion, We Link & Care, Result Oriented Process Driven Work Ethic and Breakthrough Thinking has formed the foundation of all the activities that we undertake as students of this esteemed institute.

We deeply appreciate the help and support given to us by **Prof. Deepa Dixit**. Her insight and expertise is our driving force to ensure the sustainability of our magazine.

We appreciate **Prof. Indu Mehta** for her help in selecting the best Marketing articles. She is a part of our core Marketing faculty at WeSchool.

The Finance articles were scrutinized by **Prof. Sapna Mallya** and we thank her for choosing the most relevant and informative articles.

We appreciate the efforts of **Prof. Jyoti Kulkarni** for selecting the most interesting articles in General Management domain.

The Human Resources articles were scrutinized by **Prof. Rimmi Joneja**. We thank her for choosing the best articles.

We would like to thank **Ms. Yashodhara Katkar**, General Manager - Liaison, WeSchool and her PR team for helping us to reach out to our readers. Also, we thank **Ms. Prachi Shah** and her team for helping us out in the website updates of Samvad

We are indebted to **Prof. Jalpa Thakker** for all her help and guidance in the making of Samvad. Her insight and suggestions have been of tremendous benefit to us. The Samvad Team would truly be incomplete without her.





WeChat



WeChat with Mr. P.S. Narayan, Wipro Ltd.

08



Featured Article



Green Supply Chain Management

12



General Management



Climate Change is a Real Challenge to be Faced : An Economic and Management Perspective

17



Human Resources



Chennai floods : An Efficient Mobilization of HR

19



Marketing



Brands That Care

21



Finance



Weather Derivatives – A Way To Hedge Climate

23

An Interview with Mr. P.S. Narayan

By: Team Samvad

(VP and Head – Sustainability at Wipro Ltd)

Q1) Could you please tell us about your journey from being a field engineer in Wipro to being its Business and Sustainability Head? What pulled you towards Sustainability as your field of work?

I worked in different business roles for a significant part of my career before switching to Sustainability in 2008. The various roles that I have played were reflective of a common theme of my interest in the larger picture and in interconnections between different dimensions.. My move to sustainability was also triggered by my interest in the larger rubric of the relationship between business and society and the emerging role that businesses should play in stemming the ecological crisis

Q2) As an ardent ecology enthusiast and practitioner, could you throw some light on how Wipro has managed to consistently lead on the CDP index (Carbon Disclosure Project -India)?

The Carbon Disclosure Project is a very comprehensive disclosure framework that requires organisations to disclose their greenhouse gas impact on multiple dimensions. The framework's scope is wide, covering both, strategic areas like climate risks and opportunities as well as operational details of greenhouse gas emissions across the value chain. Like any worthwhile objective, getting a good score in the



CDP Index cannot be an end in itself. Our approach has been to establish our climate program on a solid foundation and keep improving it year after year in terms of programs, measurement systems and continuous review. The disclosures that one does in frameworks like CDP then become just reflections of the core work that we do. Making sure that these disclosures are done comprehensively and transparently is critical.

Q3) As you are the Co-Chair of the CII-GBC (Confederation of Indian Industry-Sohrabji Godrej Green Business Centre) GreenCo forum for Bangalore, could you please elaborate on the work done by this forum?

GreenCo from CII- GBC, Hyderabad is a comprehensive framework that rates companies on a wide range of environmental parameters like energy and resource efficiency, renewable energy, life cycle analysis, water efficiency,

waste management , sustainable supply chain etc all adding up to a 1000 point rating system. Companies who chose to participate in the Greenco rating assessment soon find a wide range of benefits including improvements in operational efficiencies and cost savings. The Greenco forum at Bangalore is one of seven such chapters across the country. The objectives of the forum are to foster sharing of good practices among member companies and to encourage companies to adopt the Greenco framework. In the Bangalore chapter, one of our focus areas is on the SME sector wherein we hope to bring more and more small and medium enterprises onboard the Greenco framework. In this regard, CII-GBC also introduced an SME version of the Greenco framework that is tailored for this segment.

Q4) The recent climate summit in Paris has issued a lot of norms that emerging economies are expected to abide by. Which according to you are the most critical ones and which sectors could be affected by these? Given the emergence of Climate Risk Management as a strategic imperative over the last few years, how do you see it continuing to evolve in the future?

One of the defining characteristics of the Paris accord is that it is largely based on voluntary commitments by nations as compared to the Kyoto Protocol which exemplified a top down approach. Many countries have committed to reducing carbon emissions in the next 15 years, and beyond through their respective INDCs (Intended Nationally Determined Contributions). India and China are amongst the top emitters of the world and have committed to fairly significant reductions. The implications of this could be manifold.

We will see a surge in the renewable energy sector as well as in energy efficiency programs across various sectors. There will be a concomitant increase in the focus on R&D in areas of energy efficiency and non-fossil fuel sources of energy,. Industries in the oil, coal, thermal power, mining and their ancillary industries will be under increased pressure. Effective carbon mitigation will also require significant actions on preventing and reversing deforestation. Companies in industries such as paper, agri-produce, pharmaceuticals with dependency on forests for their raw materials will have to recalibrate their strategies to meet the goals of sustainable forestry. It is unlikely that any industry sector will remain untouched in the post-Paris world provided countries pursue their commitments with the same sincerity with which they have been crafted.

Q5) How feasible is it, the idea of slowly migrating towards the usage of solar/wind energy for common operations inside an MNC like Wipro, which has huge campuses and energy requirements?

The trend of increasing the renewable energy footprint of a company's operations has already started with many organizations adopting a dual approach of procuring RE from third party producers and installing on-site RE sources like solar panels. The massive thrust from the government over the last few years under the National Action Plan for Climate Change has helped in this regard though it is still not a mandate for companies to procure renewable energy. In Wipro, nearly 25 % of our total electricity demand is met through renewable energy sourcing. We also have rolling five year goals on greenhouse gas reduction as part of which we have distinct goals on RE.

At the country level, goals like 175 GW of solar power by 2022 and similar scale of wind power targets will surely help in increasing RE supply thereby making it easier for companies to increase their RE footprint

Q6) Wipro's sustainability charter is built on the core principle that business and social purpose must reinforce each other in addressing various issues around ecology and environment. Having won many awards in the field of sustainable development, what are the sustainable initiatives executed by Wipro?

The sustainability initiatives of a company need to be contextualized in terms of the industry sector and geography which it is a part of. For example, in the IT Industry, some of the most material dimensions are Energy, Water, Waste, Workforce Diversity, Employee Health and Safety, Continuous Learning, Customer Stewardship, Labor and Human Rights in the supply chain. We have a well defined program aligned with the Triple Bottom Line framework wherein we do regular materiality assessments of the most relevant issues for us. Apart from the dimensions mentioned above, we also have long-running programs in Biodiversity, Education, Children with Disability, Primary Health Care and on the horizontal themes of Disclosures and Advocacy.

Details of Wipro's sustainability program can be found in our sustainability reports and in our website www.wipro.org

Q7) Environmentalists all over the world are debating over the utility of nuclear energy. Some believe it is a way to achieve sustainability, while others feel it is a threat to the environment. What are your views on industries using nuclear energy as their primary energy source?

Regulations do not allow direct access of nuclear energy by end consumers and therefore, there is no question of industries choosing nuclear energy as an option over others. All nuclear power is fed back to the grid. Given the extremely high degrees of safety required, nuclear power generation is tightly controlled by government and rightly so. On the question of whether nuclear energy is environmentally more benign than fossil fuels is not a straightforward question to answer. Most issues of sustainability do not lend themselves to easy categorization and easy 'black and white' answers. For example, a solution to water scarcity could have five environmental positives and three social negatives – how does one assess whether the solution is overall beneficial or not? There are no ready templates for such decisions and in most cases, the evaluation is context sensitive and value dependent.

Similar are the dilemmas around nuclear energy. One enormous advantage of nuclear energy is that it does not result in greenhouse gas emissions and therefore, it can be classified as a clean source of energy. However, nuclear energy also comes with a major risk of soil and ground-water pollution due to leakage of the radioactive waste of its spent fuel which is buried deep in the ground. Also, the ever present risk of nuclear accidents like Fukushima and Chernobyl complicates decisions on nuclear energy.

Q8) How can industries attain and promote carbon neutrality?

In its true sense, carbon neutrality is a mirage since for an individual or organization to be completely carbon neutral, all hydrocarbon sources of energy must be eliminated across the value chain. Realistically speaking, such a world is many decades away. For, while we are seeing impressive progress on renewable sources of electricity, the same is not the case when it comes to transportation. Oil will continue to be the mainstay of our transport infrastructure for the foreseeable future. Therefore organizations which try to achieve carbon neutrality across its value chain can do so only offsetting its carbon footprint. The flaw with this approach is that while 'technically' an organization can be called carbon-neutral or even carbon-positive, there is a negative externality that is being created all the time somewhere outside.

For example, if a car has to be completely carbon-neutral, not only must its fuel sources be carbon-free but each and every component that is part of the car must have been made without any fossil fuel source of energy. We know that it's impossible currently to come anywhere close to this. Take the case of electric vehicles (EVs) in India. While, EVs do not burn gasoline, the electricity that they consume comes from the power grid which is largely thermal in our country. Therefore, there is a definite carbon footprint associated with using an EV. Now add to that, the greenhouse gas emissions associated with its manufacture, transport logistics and so on.....and what you have is certainly not a carbon-neutral car.

Q9) Would you like to give any advice to students who wish to work in the field of sustainability?

Sustainability is an emerging field but already vast in the scope of what it covers. Therefore, it is best for those seeking to work in this space to carefully assess the sub-domains of interest. The domains range from the technology-centric (Renewable Energy, Resource Efficiency, Waste treatment, Product Design) to Conservation (Biodiversity, Wildlife conservation) to Economics and Finance (Sustainable Investments, ESG Analysis) to Social Sciences (the fields of sustainable development). There are certain common competencies and mindsets that are required across the various streams.

A Systems-Thinking ability to look at the larger picture and to see inter-relationships between multiple dimensions, an integrative mindset that combines intellect, sensibility and sensitivity and a genuine interest in making a difference. Sustainability is still an emerging area, and not yet a main stream career. Hence students who wish to pursue careers in this field must be patient, fully committed and must refrain from comparisons with more established career options . For those with deep interest in this area, I can assure you that what you will be doing is a calling and not just a career. All the best..

———O———

Green Supply Chain Management

By : Swagato Sarkar, BM(2015-17), XLRI, Bhubaneswar & Ashmita Bose, PGDHRM (2015-17), IIM Ranchi

Introduction

With the rapid globalization in the last few decades, the externalities imposed by firms on the environment has also increased significantly. According to a report by Trucost, the environmental damage caused in 2008 by the world's leading firms is 2.2 Trillion dollars. So firms have been shifting from a linear process flow to the circular economy approach to make their operations eco-friendly. The frameworks of operations have been modified over the years from assembly line to TPM/TQM to lean and currently Green Supply Chain Management (GSCM) and Sustainable Supply Chain Management (SSCM) to reduce the climate risk of their products or services.

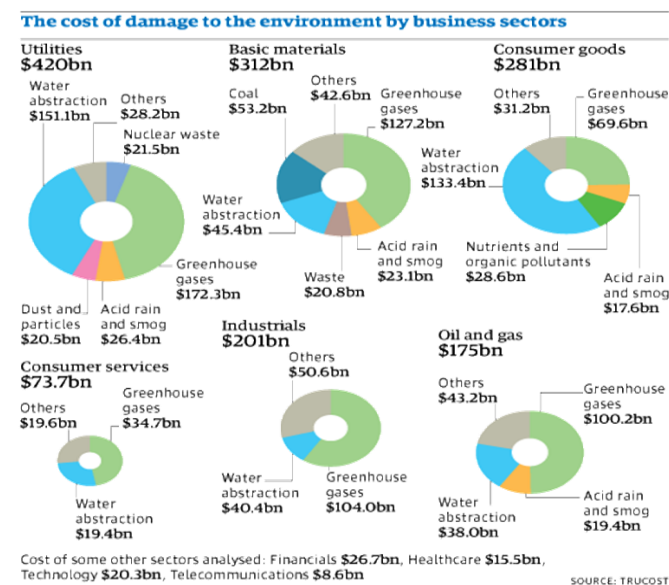


Image Source

<https://www.theguardian.com/environment/2010/feb/18/worlds-top-firms-environmental-damage>

Why should firms adopt GSCM practices? (Ansari et.al, 2015)

- Product Differentiation** – In today's world there is a huge amount of competition between various firms to make unique products. Business invests millions in R&D to make their product stand out but in sectors like FMCG it is very difficult to build a radically different product. Hence the only way companies can attract customers is by showing that their products are environment friendly or their processes are green. The biggest success in this regard is the ITC which heavily markets their waste positive, carbon positive methods.
- Governmental Regulations** – In the last decade, governments all over the world has come out with a string of regulations in order to minimize the damage that businesses have on the environmental. Hence in order to stay ahead of the competition, supply chain processes of firms should be made green and must include the triple bottom line concept.
- Profitability** – If organizations can design their supply chain to make products which are ecofriendly and require low cost, it will generate high demand from customers. By employing proper waste management methods and by using reverse logistics, firms can re-utilize their wastes and subsequently reduce the cost of manufacturing by a large extent.

Conventional SCM VS Sustainable SCM

- 1) **Approach** – Traditional SCM follows the cradle to grave approach while Sustainable SCM follows cradle to cradle approach by employing reverse logistics.
- 2) **Procurement** – Conventionally procurement strategies do not take into account environmental factors but green procurement is an important aspect of SSCM.
- 3) **ISO** – Sustainable Supply Chain Management uses the ISO 14000 certification while the traditional SCM does not do so.
- 4) **Manufacturing** – Traditional SCM focuses mainly on improving process efficiency and productivity but SSCM in addition to this also focuses on minimizing waste creation.

Components of Green Supply Chain Systems

- 1) **Green Procurement (Vijayvargy et al., 2014)**
– Green procurement is the idea of buying raw materials keeping in mind the environmental effects. Hence the concept of Environmentally Preferable Purchasing (EPP) speaks about choosing products after evaluating the product life cycle of the material. For example, Nikon gives a preference to those vendors whose products and processes are more environment friendly. Also in the Taj Residency Hotel in Bangalore, only recycled paper is used for the toiletries. Furthermore, the weedicide and insect killers used are also eco labeled. (Verma et. Al, 2014)
- 2) **Green Product Design (Mitra, 2014)** - This philosophy focuses on designing products so that they will have minimum impact on the environment during their Life Cycle. This is because about 30-80% of the mentioned impact is decided during the designing phase of the products. Hence using environmental friendly parts & components which can be easily disassembled should be given priority. This is the reason why nowadays many of the paint companies are switching to eco-friendly paints from toxic Lead based paints.

- 3) **Green manufacturing or process designing** – The manufacturing process should be so designed so that it is carbon positive, water positive and waste positive. Since the handling of solid wastes require money, hence it is imperative to minimize the creation of wastes at their source. Once the process is green, it can be aggressively marketed to attract customers like it PepsiCo or ITC.
- 4) **Green packaging and storage** – Packaging materials may mainly consist of wood, plastic or metal which are not eco-friendly. Hence lots of governments all over the world have recommended the minimization of these packaging wastes. Having lightweight and bio-degradable material packaging is essential because after discarding it may enter into our food chain. Examples of this are reusable pallets or reusable milk or soda bottles. Also L or J shaped warehouses reduces the number of internal trips required for pick-pack and put away.
- 5) **Green distribution** – Corporations should be using the rail route or water route more frequent than airplanes for transportation of goods as the fuel consumption is extremely high in the latter case. Also localization of vendors will help to reduce dead-head travel in trucks, which should employ Full truckload transportation (FTL) rather than less than truckload (LTL) methods.
- 6) **Reverse logistics** – The main aim of reverse logistics should be resource reduction. Reverse logistics will consist of the SCM capabilities to take care of not only the customer returns but also the waste material generated. A good example of this is the old mobile phones being accepted by Nokia. Also it is common knowledge that the waste product from one industry can be the raw material of another industry.

For example the molasses from the sugarcane industry is a raw material for the alcohol manufacturing plants.

PUMA – Leader in Reducing Climate Risk through its Supply Chain

Puma has been a world leader at reducing the climate related impact of its products. With the help of Trucost it has been publishing its Environmental P&L account which gives the details of the monetary impact of its activities on the environment. This helps help redesign their SCM strategies. Through this Environmental P&L account it traces the impact of its Tier I to Tier IV suppliers on the environment. Hence it has undertaken the commitment to reduce the impact of its final suppliers too.

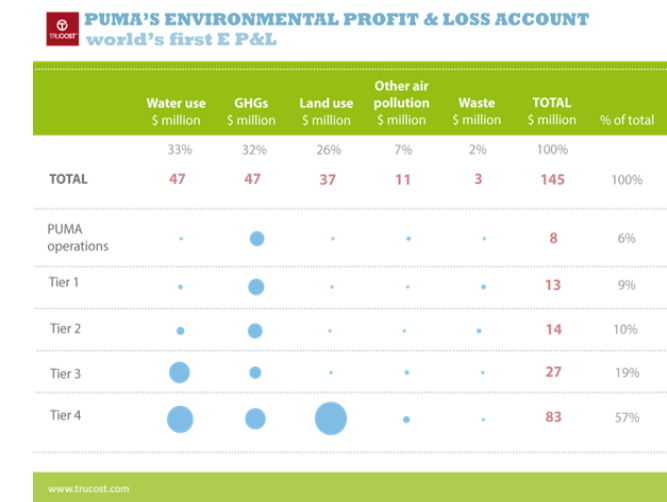


Image Source: www.trucost.com

Growth Drives for Adoption of GSCM and SSCM (Jain et.al,2014)

1) **Government Regulations** – An increase in government regulations for environmental protection has forced companies to change their SCM practices to make it more sustainable and green. Also certain tax incentives are also provided by the government to switch over to alternative uses of energy.

2) **Selling to foreign markets** – Many a times, in European or North American markets, customers are extremely conscious about the brands they buy and having an environmental friendly product goes a long way in capturing their imagination.

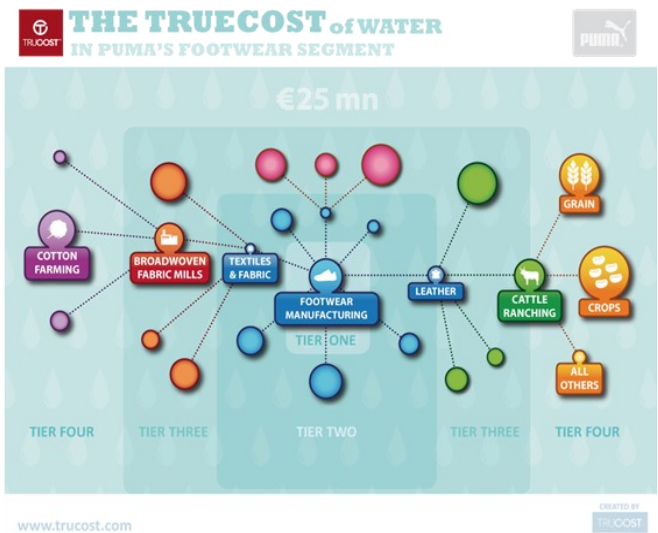


Image Source: www.trucost.com

3) **Vendors** – Many multinational companies utilize only those vendors who have the necessary eco-friendly certifications in ISO standards. Hence in order to be a part of the globalized market it has become important for suppliers also to revamp their existing processes.

4) **Competition** – When competitors like Coke advertised that their processes were water neutral, PepsiCo in order to outdo them modified their processes to become water positive. In today's market unless a company innovates to change its SCM process to GSCM, it will be beaten by its competition. For example in response to ITC Grand Central Mumbai's use of an organic waste converter to convert Food waste into manure, The Orchid Hotel handles garbage in hotel premises through a vermiculture project.

Green Supply Chain in Services Industry

The services industry has presently the highest share of GDP in India. Hence it is essential that Green SCM initiatives be implemented in not only the manufacturing sector, but also the services sector. By data obtained from the TERI (The Energy and Resource Institute), more than 30% of the electronic waste in the country comes from IT services.

Example: Use of Green Supply Chain Practices in TCS

- 1)**Internal Use** – Instead of using separate servers, TCS has combined the workload of various CPU units onto a single server. It has achieved this through innovation by using the desktop virtualization project which has significantly reduced electrical energy. It also uses star rated equipment which is energy efficient to reduce their energy consumption.
- 2)**Green Procurement** – TCS carries out the Life Cycle Assessment of products which it purchases and also takes into account the environmental considerations of its procurement. It actively tries to reduce the generation of wastes and promotes the buying of recycled products. It also encourages all its suppliers to adopt environmental friendly practices.
- 3)**E-waste management** – It tries to reduce waste generation through practices like printing on both sides, switching from manual to electronic documentation and mail. It has also implemented a system where every associate must drop recyclable materials in designed recycle containers. TCS encourages re-using materials rather than recycling them wherever possible.

Barriers for adopting Sustainable SCM

There are certain barriers to the effective implementation of SSCM which may be an intrinsic or extrinsic to a company. Some of those are enumerated below:

- 1)Lack of proper sustainability standards and government regulations
- 2)High initial investment for adopting waste disposal methods – In Sweden the consumers are often unwilling to bear the extra cost of a sustainable solution.
- 3)Improper alignment of long-term sustainability strategies of the company with its short term goals of profitability – For example in China due to cutthroat competition the providers of transportation cut corners to stay competitive.
- 4)Lack of sufficient motivation on the part of the top management
- 5)Insufficient training about sustainable practices of Supply Chain

Implementation of Sustainable Strategies for Supply Chains

The following steps can be undertaken in order to shift to a more sustainable supply chain for a firm:

- 1) **Existing Supply Chain Analysis:** Most of the companies do not perform a LCA of their products or Process Cost Assessment to under the impact of their Supply Chain on the environment. They also need to identify their most important suppliers and the challenges they face.

2) **Convey targets:** The suppliers must be made aware of the expectations and the code of conduct that the firm expects them to abide by in environmental issues. The same can be then conveyed to the customers and the value chain of the company can be then re-organized accordingly.

3) **Benchmarking suppliers:** A benchmarking exercise can be done to understand the level of compliance of the existing suppliers. Many retailers and major brands collect information from suppliers in the form of surveys or questionnaires. They are then benchmarked on crucial aspects like waste treatment & generation, water usage, recycling of materials etc. After benchmarking is done, feedback can be given to them to focus on the areas on which they need to improve.

4) **Training and Skill building :** To bridge the gap between existing and target Sustainable practices, companies need to invest in the training programs of the suppliers. In 2006, HP conducted 22 such training programs in 12 countries.

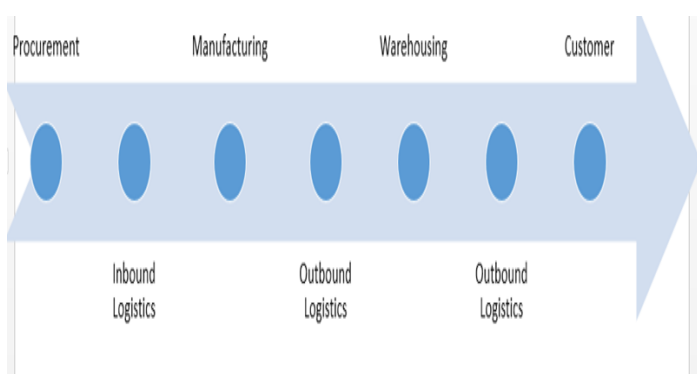


Image Source: www.fastcoexist.com

5) **Conducting Periodic Audits :** After measuring the supplier's performance initially, periodically evaluations can be conducted.

Based on these evaluations, feedback is given to the suppliers. Incentives can also be provided to the suppliers in order to coerce them to comply more with the green recommendations. There are also certain standard indexes which are used to conduct these audits like Higg Index.

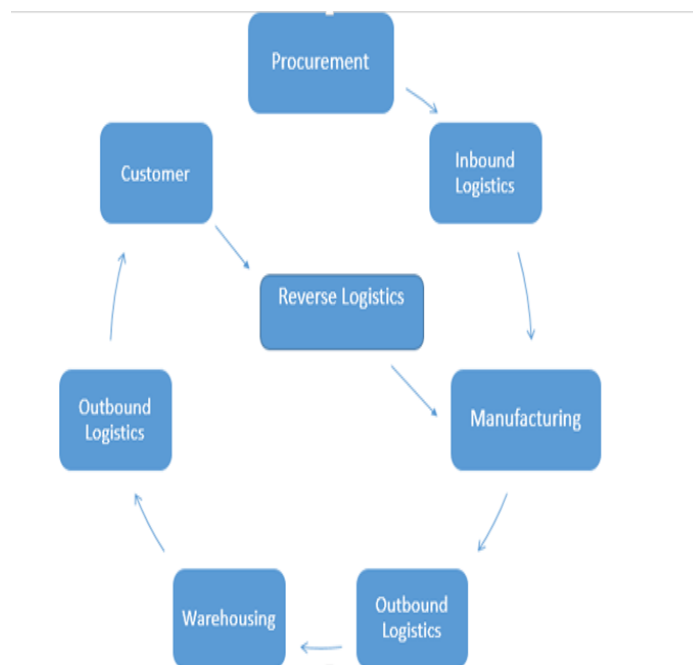


Image Source: www.fastcoexist.com

6) **Peer Collaboration:** Many a times in order to complete the closed loop systems, industries need to collaborate among themselves. For example Power generation and Cement Industries used to work together to handle the problem of waste management of fly ash, thus helping the Power companies implement Sustainable SCM practices.

—O—

Climate Change is a Real Challenge to be Faced: An Economic and Management Perspective

By: Molla Ramizur Rahman, MMS (2015-17), WeSchool, Mumbai

Introduction

Climate change has become a tremendous issue to be discussed in this phase of the century. The deteriorating effect of climate is a serious concern to be thought of. It has been observed that over the last few decades there has been considerable threat on the climate over the various parts of the world. It has been evident from various situations like increase in diameter of ozone layer hole, melting of ice belts in Arctic and Antarctic zones resulting in sea level rise. Global warming is one of the serious effects due to increase in greenhouse gases emitted from various sources leading to the increase in temperature of the earth. The effect of the global warming is observed from the increase in the average temperature of the earth over the last century. It is very important for industrialized nations with high populations like India and China to create an effective planning.



Image Source: crazeeartist.deviantart.com

Responsibility of Business Entity

It has been noted earlier, rules and standards are been made to make the situation better. Some expenditure on capital investments should be made during installation of plant and annually to upgrade the emission control devices to reduce the pollutants. This further has an impact on the cost or the service of the product as well. Consumer should be of the opinion to buy the product at an increase price which is manufactured from cleaner methods of production. Climatic change though mainly caused by air pollutants but not restricted to it. The companies especially the manufacturing and production unit has a considerable role to play in limiting the pollutants.



Image Source: www.fastcoexist.com

Units must regularly check the pollution limits emitted by it. The chimney should be at a considerable height. Proper pollutants treatment must be implemented to reduce the level of danger. The responsibility lies on the management to create and develop essential and effective measures to make a healthy place to live in.

Standard like ISO 14000 speaks of to develop the operations in suitable ways to reduce the impact on the environment. It consists of framing efficient production techniques, implementing and treating the wastes and pollutants and continuously improving the process.

Proper technology development and using standard and innovative way of production would certainly reduce the pollution to a larger extent. Further, developing infrastructure in a suitable way would definitely create a significant change in the existing environmental conditions. The focus should be made in a sustainable business model where we should consider both of improving business as well as decreasing the climate threat due to the development. It has been observed that many industries in the country are quite concern in improving their way of productions, invests and promotes, initiates employees and develop better way of production.

How Can it Impact Economy?

Climate change would definitely have a larger impact in the economics. Due to increase in heat, it can dry up the land leading to drought. In an agriculture dominant country like India, which depends mostly on monsoon, climate changes have adverse effect in bringing rains. The decrease in crop production has become common especially in economic hit countries in the African continent. This is one of the most possible reasons for scarcity of foods leading to famines.

Significant events like Chennai flood are noticed which portrays out the actual effect that higher temperatures creates an imbalance in the water cycle in the atmosphere leading to unthinkable economic damage.

Further due to rise in sea temperature it has an effect over the sea creatures especially lobster, where a large number of people were dependent on these creatures as their livelihood. The heat in ocean water also causes damage to the valuable coral reefs which contributes significant contributions to the economy in goods and services. Tourism industry is also in danger due to the lack of interest of people in visiting places which has changed its original essence of interest due to variation in climate. Further, the risk of storm like hurricanes and cyclones also lie due to transition of climate. This might result a devastating effect on infrastructure and property having significant effect at the macroeconomic level. Heat related disorder has become common all over the world which earlier was restricted to certain equatorial and tropical countries. The heat waves have resulted a tremendous health issues have a major mark in healthcare finance.

Conclusion:

It is the responsibility of every individual to think, work hard, and create a better place to live in. At the same time the nations should also have serious concern and frame out policies to regulate this critical concern. Various countries should see this issue a threat to the economy and discuss and share opinions. Business industrial units at the same time should also be take the responsibility in achieving the objective of cleaner environment. Consumers too, have a big role to play in making this environment healthier.

—O—

Chennai floods: An efficient mobilization of HR

*By: Surabhi Sheth and Alok Jha, MA-Natural Resource Management
(2015-17), TISS, Tuljapur*

Climate change and its related impact could be observed all over the world and India is one of the examples. Chennai floods which are decoded as the worst rainfall in 100 years, leading to the death and displacement of lakhs of inhabitants. The city is dotted with wetlands and natural channels where excess water from the city is drained off. But the entire mechanism reverses when urbanisation comes into the picture. Prioritizing one at the cost of the other comes with a price.

Chennai is a technology hub, therefore urbanization in the city increased almost by 20 times. With the establishment of the SEZ, Chennai became an attraction for the global investors and the population doubled. Thus, there is a rush for development with no sustainable back up. Chennai has large areas of marshlands but they are rapidly decreasing. These areas have been converted into urban impervious surfaces which increase the run-off and cause water logging. This is an indication of unplanned development.

The rainfall of December 2015 killed almost 500 people with displacement of over 18 lakh people. According to the Tamil Nadu government, 30.42 lakh families had suffered total or partial damage to their dwellings. 3, 82,768 lakh hectares of crops had been lost, roughly 98,000 livestock animals and poultry had died. Around 1.5 lakh street vendors sustained losses of over Rs.300 crore. Besides supplies of basic necessities such as water, vegetables and milk was heavily affected due to logistical difficulties. During floods water bottles were sold between the price of Rs.100-150 and the prices of

vegetables and milk increased drastically. The Indian economy suffered a loss of \$3 billion due to the floods. The worst hit industry in the organised sector is the automobile industry.

Chennai accounts for 25% of India's automobile production. Many automobile companies such as Hyundai, Renault, Nissan, Daimler India and Mahindra & Mahindra have set up their manufacturing plants in Chennai. Stalled production of automobiles led to a drastic dip in productivity and longer waiting periods. Company-owned service centres are facing a shortage of original spare parts to supply to the customers.

Damages of other sectors (in crores)

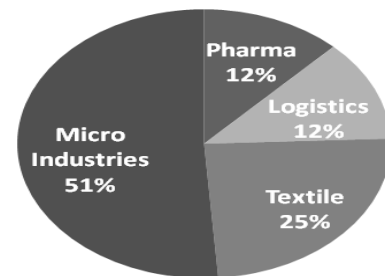


Image Source: <http://newstodaynet.com/chennai/economic-impact-chennai-floods>

The closing down of airport and cancellation of flights has led to a collective loss of \$150 million of the aviation industry. Many private jets have been damaged. Many IT firms such as Infosys voluntarily remained closed fearing the safety of their employees. Apart from this, many office buildings, supply chain stores, warehouses and their goods have been either completely or partially destroyed.

A point of concern that has been brought forward by these floods is the poor insurance penetration in India. Only 10% of the damages have been claimed so far. Most of the properties and businesses are not financially protected.

Some optimists are hopeful about the quick recovery of Chennai from this devastation. According to the Keynesian way of thinking, Chennai has been presented with an opportunity to re-grow and rebuild itself with better infrastructure and amenities. More investment would pour in which would help Chennai develop better and faster. Hence, economic losses would be overcome in a short time span.

The commendable aspect of this deluge is the way people reacted and helped those in need. The highlight of the relief work was the mobilisation of man power. Taxi operator Ola, started a free boat service in the moderately to heavily submerged areas. The boats were rowed by professional rowers and fishermen. Details of the rowers and fishermen were provided to Ola by local firemen and the Chennai Sport Fishing Company. These boats contained food and water supplies and umbrellas for the flood-hit people. Each boat had the seating capacity of 9 people.

Many offices such as HCL gave their employees the option of work from home for their safety. It also activated Support Services for the employees to be in constant touch with them. Cognizant provided necessary commodities to those of its employees who chose to stay back at the office. They implemented a business continuity plan to ensure smooth working at the office. Wipro transported many of its employees to Bengaluru in about 100 buses. Google created a crisis response tool, South India Flooding to provide helpline numbers, contact details of shelters and people who were offering shelter, maps of flooded streets and important tweets.

Facebook enabled users to mark themselves Safe during the floods. A group of six engineers of a telecom company worked for 53 hours straight to ensure that connections were not disrupted. They only survived on biscuits as their company was unable to transport food to their location as it had been waterlogged.

Many start ups were doing the best they could help the victims. DocsApp, an app for medical consultation provided free medical check-ups to the victims. Practo, a doctor discovery forum put out a list of numbers of various doctors and hospitals available. PayTM, an online recharge app provided free talk time of Rs. 30 to all the people in Chennai. Zomato, a food delivery company started a scheme “Meal for flood relief” through which a free meal was provided to a victim once a customer ordered from Zomato. BlaBlaCars, a ridesharing app provided food and water supplies to the victims through their taxis.

With the right kind of attitude, platform and opportunity, efficient mobilisation of human resources could play a great role in averting and mitigating huge problems.

—O—

Brands That Care

By: Ameeth V Pai, PGDM E-business (2015-2017) , WeSchool, Mumbai

Climate Change Conferences have been happening since 1995 and have received decent media coverage since the early 2007, It's great news that climate change, perhaps the single biggest threat to life on the planet, is making news. But do people, businesses and societies as a whole regard climate change as a grave issue that they need to be concerned about?

Meanwhile, it has been already established in a report named Expert Consensus by **The Institute for Policy Integrity**, that climate change is certainly a risk that we need to confront very soon and is affecting the global economy negatively. It is estimated that there will be 10% global GDP loss if we go business as usual and do not alter our emissions by 2090.

There is a pervasive misconception that it's the responsibility of the governments and they need to ponder about the gravity of the climate change, monitor and take appropriate measures to reduce and avert the risks related to climate change. But it must be understood that government regulators themselves can't do away with the imminent risk of climate change.



Image Source: <http://www.theverge.com/2012/3/19/2884350/google-recycled-water>

Therefore, it is vital that the brands and businesses especially the humongous ones swing into action and try to substantially reduce the emissions and contribute to the governments' efforts.

Positively, the attitude that brands manifest towards their responsibility of caring for the earth's climate as we see is improving and they are continuously finding venues and opportunities to contribute to make earth a better place to live.

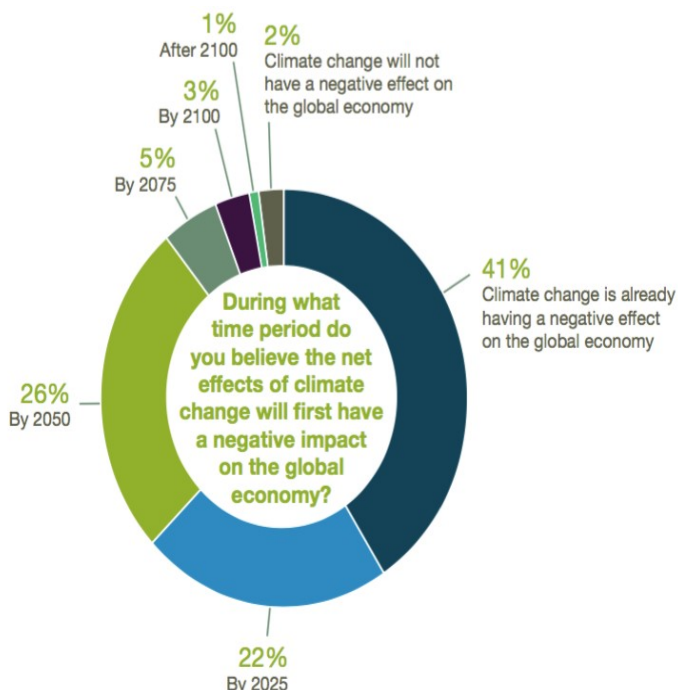


Image Source: <http://www.vox.com/2015/12/8/9869918/economists-climate-consensus>

A quintessential brand that care about climate is Google, is certainly at the forefront of the group of the companies which care for the climate and is also known for heavy investments it makes. Its' executives say that these investments are not just some philanthropy effort but double bottom-line investments for better environment and finance for their own company and their employees.



Image Source: <https://wteinternational.com/why-do-apple-and-google-like-solar-farms/>

In a recent report by a U.S think tank CDP studying climate, it is found that companies that care about climate change are not only helping the government in minimizing its harmful effects, but also end up making more money.

It tracked these hotshot organisations (S&P 500 companies) over a period of 3 years and found that if they are setting up climate change risk management policies, strong greenhouse gas emission reductions and so on have a 18% better return on equity and a 67% higher ROE than companies that don't disclose climate change-related actions. It concludes that "If we are to avert the effects of dangerous climate change, a step change in the size and scope of emissions reductions is needed as we approach the scientific consensus point of no return at 450 parts per million." The report is cautiously hopeful about their accomplishments.

—O—

It claims that it is the largest corporate purchaser of renewable energy on the planet. It recycles 100% of its electronic equipment from its data centres. Recently it announced that it will invest for Africa's biggest wind farm which is also touted as largest single private investment in Kenya.

This when completed is expected to save about \$113 per year on imported fuel cost. This eventually helps Google in branding itself as a Technology Giant that cares for earth and its inhabitants. Not just Google, other hotshot brands in the foray to save the environment are Ford, Apple, Best Buy, Microsoft.

Weather Derivatives – A Way To Hedge Climate

By: Param Raj & Richa Sharma, PGDM(2015-17), LIBA Chennai.

Weather derivatives are used to hedge against any type of unpredicted weather. The concept of weather derivatives is not only limited to agriculture. Weather derivatives can be extended to industries like construction companies, energy companies, etc. whose operations can be affected because of weather.

The history of weather derivatives dates back to 1996. The first contract of weather derivative was done between Aquila Energy and Consolidated Edison. The contract mandates that consolidated Edison will purchase electric power from Aquila Energy for the month of August. If the month of August turns cooler than expected, than Aquila Energy will compensate Consolidated Edison. Slowly and slowly, weather derivatives became popular and their trading starts over the counter in the year 1997.



Image Source - Author

The first exchange traded weather derivative was introduced in the year 1999 by Chicago mercantile exchange. From year 1999, Weather derivative market has expanded many folds. According to a report by Weather Risk Management Association, total value of trade in Weather derivative segment totaled at \$11.8 billion in 2011. American and European regions

accounts for the majority of the weather derivatives. Currently, energy companies are most indulged in the trading of weather derivatives. Out of the total weather derivative market, nearly 70% of the market is accounted by energy companies.

Total notional value of weather derivatives market

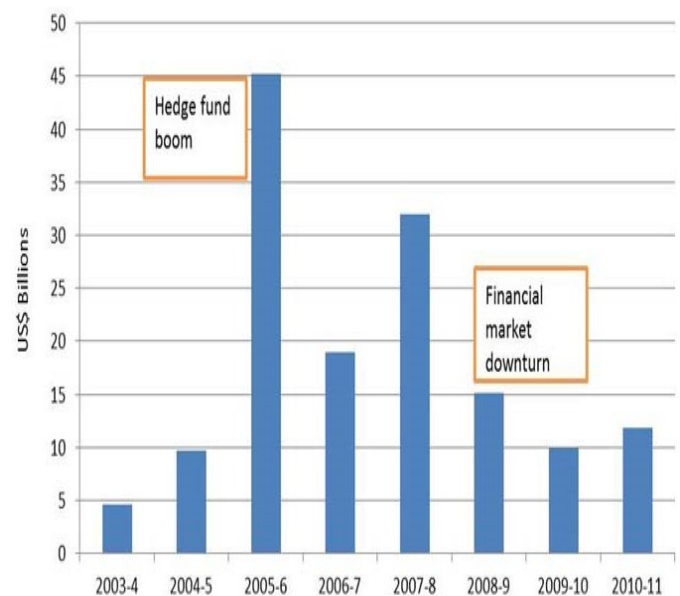


Image Source : Weather Risk Management Association Annual Survey

Agriculture is the second most user of this instrument. Construction companies and insurance industries whose businesses are exposed to weather are also active users in this segment. Besides these there are many other small players like restaurants, travel and tourism industry, etc. who use this instrument to hedge the weather risk and maintains a smooth flow of income.

Next let's look at how Weather derivatives are priced. Weather derivatives are not priced like normal derivative instrument. In other derivatives, there is an underlying security that has some value. But in case of weather derivatives, the underlying security is weather which has no value.



Image Source - Author

Therefore, most of the weather derivatives are priced according to the concept of Heating Degree Days (HDD) and Cooling Degree Days (CDD). An HDD is defined as the number of degrees the average daily temperature is below 65OF. Similarly, a CDD is defined as the number of degrees the average daily temperature is above 65O F. It can be better understood with the figures below.

Current Weather



Mostly Cloudy
Temperature: 55°F
Dew Point: 24°F

RH: 28%
Wind: S 8 mph
Pressure: 1013 mb

Day	Hi	Low	Average	Weather	HDD	\$Impact
THU	54°	34°	44		21°	\$420
FRI	52°	37°	45		20°	\$400
SAT	52°	37°	45		20°	\$400
SUN	56°	37°	47		18°	\$360
MON	54°	37°	46		19°	\$380
TUES	58°	37°	48		17°	\$340
WED	61°	30°	46		19°	\$380
Total \$2680/ per contract						

Image Source - <http://www.investopedia.com/articles/active-trading/021814/overview-weather-derivatives.asp>

In the figure above, HDD is calculated on the daily basis. For example, on Monday, the average temperature was 46O F which is 19O F below the benchmark of 65O F, therefore, the value of HDD is computed as 19O F. In the above case, every degree below the HDD is priced at \$20. Therefore, the value of the contract on Monday is \$380 (19*20).

Similarly, the value of the contract is calculated on daily basis and then all the figures are added to arrive at the monthly figure at which the settlement takes place. The case is opposite in case of CDD. Now let's have a look at the condition of weather derivatives in Indian context. Indian economy is an agrarian economy with 60% of the population engaged in agriculture sector.

DEPENDENCY OF INDIAN FARMERS

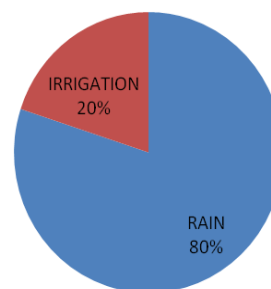
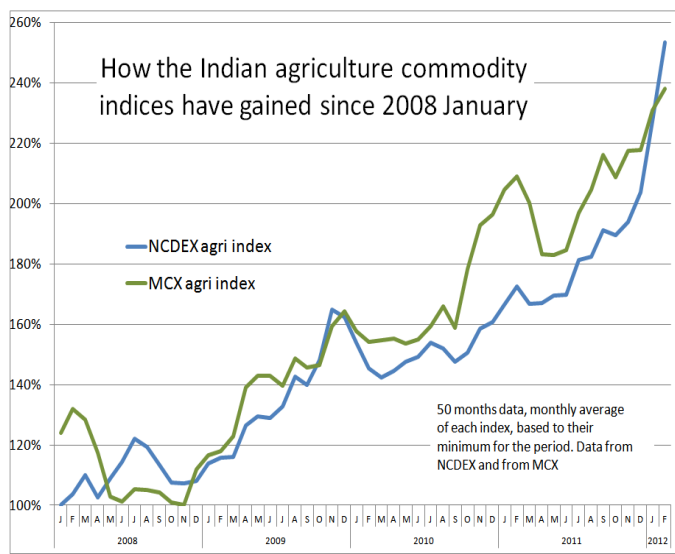


Image Source - Author

As it can be seen from the graph, out of 60% population engaged in agricultural sector, 80% of the farmers are dependent upon weather for their harvest. Therefore, weather derivatives are most feasible in Indian context. Despite of such great feasibility, the usage of this instrument is still in its nascent stage in India.

The harvests of farmers are protected by a way of crop insurance provided by the government. Crop insurance can cover less probable events like hurricane and tornados but not high probable events like dry monsoon, excess heat and excess winter.

All such events are covered under weather derivatives. In India, NCDEX tried to launch weather derivative way back in 2005 with the launch of Monsoon Index, but still various bills need to be passed in parliament for legal trading of Weather derivatives. The OTC market for weather derivatives in India is estimated to be \$1 Billion.



To summarize, weather derivatives are great instruments to hedge against climate. This instrument is not only limited to agricultural sector but can be extended to any industry whose business can be impacted because of weather. Weather derivatives are different from other derivatives as like other derivative, the underlying security that is the weather has no value. The concept of HDD and CDD act as the parameter for pricing the weather derivatives.

Weather derivative has already occupied a large part of derivative market in developed economies but the concept is still lagging behind in many developing economies. Implementation of such derivative by developing countries can give a big push to their agricultural sector as well as to the economy as a whole.

Image Source - <https://makanaka.wordpress.com/2012/03/10/charting-the-journey-of-indias-agri-commodity-indices-to-250-in-four-years/>

A lot of steps need to be taken to make weather derivative a success in India. Every year a lot of farmer's produce got eroded due to unpredicted climatic conditions.

The farmer in turn raises the price to compensate for their losses. This ultimately creates an additional financial strain on final consumer and creates inflation within the Country. Therefore, if required steps are taken by the government, then weather derivatives will not only benefit the Indian farmers but also the final consumer and economy as a whole will be positively impacted.

—O—

We invite articles for the January 2016 Issue of Samvad.

The Theme for the next month: January 2016 - “**Family Business Management**”

The articles can be from Finance, Marketing, Human Resources, Operations or General Management domains.

Submission Guidelines:

- Word limit: 1000 words or a maximum of 4 pages with relevant images.
- Cover page should include your name, institute name, course details & contact no.
- The references for the images used in the article should be mentioned clearly and explicitly below the images.
- Send in your article in .doc or .docx format, Font size: 12, Font: Constantia, Line spacing: 1.05' to **samvad.we@gmail.com**. **Deadline for submission of articles : 31st January, 2016**
- Please name your file as: <YourName>_<title>_<section name e.g. Marketing/Finance>
- Subject line: <YourName>_<Course>_<Year>_<Institute Name>
- Ensure that there is no plagiarism and all references are clearly mentioned.
- Like our Fb pg: [Samvad.WeSchool.Student.Magazine](#).

Samvad Blog

As said by Ann Morough Lindburg, “Good communication is as stimulating as black coffee and just as hard to sleep after.” Samvad, which means 'to converse' in Hindi, is exactly the motive of our team Samvad. Our readers and writers are of utmost importance to us at Samvad. We don't like to interact with you only once when the issue is released. So, we thought, what next? Then came the idea of a blog - the ideal platform for meaningful discussion on a more regular basis. Hence, we present to you 'The Samvad Blog'. The Samvad Blog, as the name suggests is a blog dedicated to sharing of information, insights and opinions that allow exchange of some valuable ideas by stimulating your intellectual senses. It will include some interesting reads on management gurus, book reviews, and relevant articles among many other varieties of food for thought.

<http://samvadwe.blogspot.in/>

Don't forget to comment with your opinions. Always have a healthy debate we say! As progression lies not in agreement, but debate!



Anuja Kadam, Editor



Aman Parakh, Co-Editor



Prajakta Ninale, Head, Finance Section



Vivek Nair, Head, Marketing Section



Abhinav Chakraborty, Joint Head,
Human Resource Section



Rama Kaushik, Joint Head,
Human Resource Section



Nakiya Garari, Head,
General Management Section



Tanvi Tawde, Joint Head,
Operations Section



Nikhil Kumar, Joint Head,
Operations Section



Shristi Rai, Joint Head, WeChat



Lopa Thakkar, Joint Head, WeChat



Vikas Vijayan, PR & Communications



Sussanna Puthooran,
PR & Communications



Shruti C, Website, Blog, Facebook, Quora,
Design - Cover Page



Azar Siddique, Facebook,
Online Content



Swapnil Chaudhari, Design - Cover Page



Jigar Padhiyar, Blog, Online Content



Nishigandha Joshi, Samvad Board/
Online - Offline creatives



Prakash Gadhe, Samvad Board/
Online - Offline creatives



Nilam Kshire, Online / Offline - Marketing,
Events, Branding



Vikrant Kulkarni, Online / Offline –
Marketing, Events, Branding



Kiran Kalpande, Online / Offline –
Marketing, Events, Branding



Sangapriya Kedar, Online / Offline –
Marketing, Events, Branding

