Carbon Accounting and Sustainable Designs in Product Lifecycle Management

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Week 09

Lecture 40

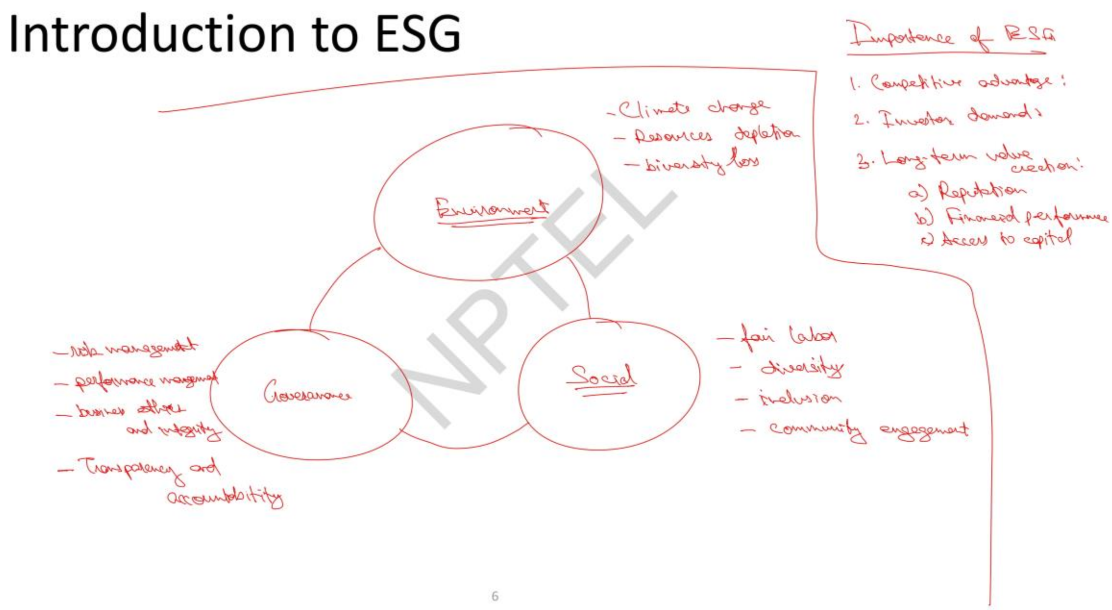
Environmental, Social and Governance (ESG) Systems

Hello friends, welcome to the last lecture that I would be delivering in this course, Carbon Accounting and Sustainable Designs in Product Lifecycle Management. This lecture would be talking about as I promised the ESG systems. That is environmental social and governance systems. ESG stands for Environment Social and Governance Systems. It represents a set of criteria that investors and organizations used to evaluate a company's impact on society and the environment as well as its ethical and governance practices.

So ESG factors are used to assess a company's commitment to sustainability. That is when we talk about sustainable designs in the course, the commitment to sustainability throughout the life cycle of the product is one that ESG focuses upon. Then responsible business practices for the long term value creation.

If you recall I talked about certain software solutions which also helps to develop the data to be reported for the ESG for example, Sphera. Sphera was one of the software that helped to evaluate the ESG performance and risk management of a company which was majorly focusing upon the organizational safety.

Then we talked about the net zero cloud by Salesforce which also helps to develop the accounting of your product. So, practical emission and reporting capabilities were there in those software solutions. So, those help to have a responsible business practices which are committed to sustainability and long term value creation is the focus.



So, what is ESG? We have environment, we have the governance that is taken through the social causes as well that is I will put here environment social governance.

When we talk about environment, environmental impacts the businesses, operations and the environmental stewardship. So, this connects with the social that is how the company manages relationships with and create value for the stakeholders. Then social is also connected to governance. That is companies leadership and management philosophy, practices, policies, internal controls and shareholder rights. All those are there and environment is also connected with the governance as well.

So, environment and challenges address the climate change. It addresses the resources depletion. And other biodiversity laws etcetera that we discussed. So, these are the environmental challenges social responsibilities the fair labor then diversity inclusive society. And community engagement whether local or the broader perspective global that is community engagement.

On the other hand, governance part is there that focuses or aligns the social aspects with how would these be governed that is risk management then performance management So, ESG factors have become a pivotal requirements in businesses and in investing landscapes as well. They serve a comprehensive framework for assessing and managing risk effectively. The importance of ESG could be put it in this way. Number 1 is competitive advantage.

That is companies that integrate ESG into their strategies gain a competitive edge. ESG conscious consumers and investors prefer businesses committed to sustainability and ethical practices. Then we have the invested demand as well nowadays. Investor demand, the people who will provide the funds to your company or invest in your company are now concierge or environmental concierge. So, investor recognize the materiality of the ESG factors influencing their capital allocation decisions.

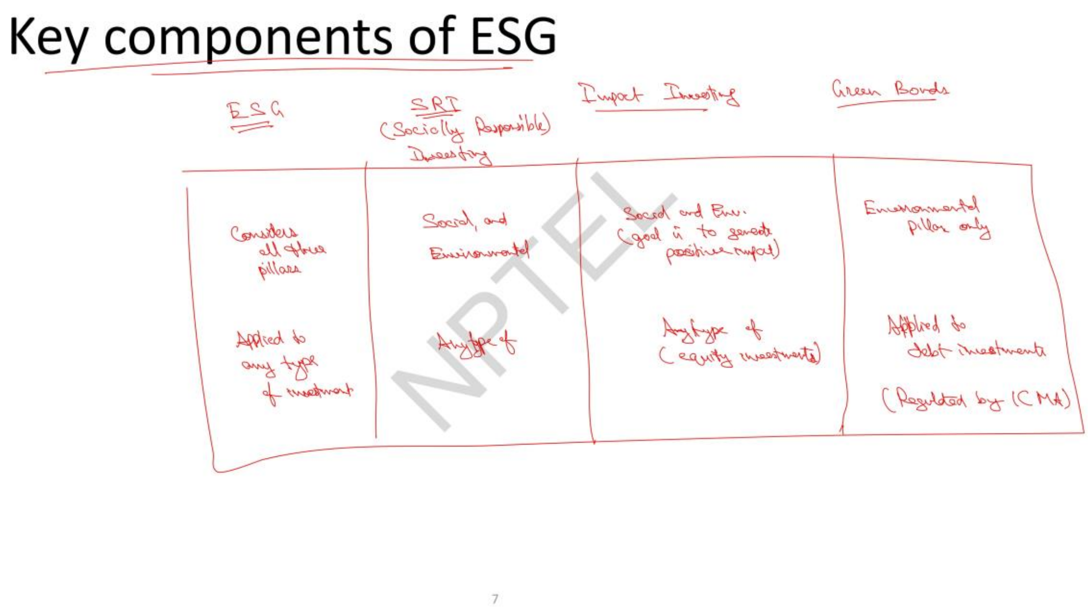
Companies excelling in ESG often enjoy better access to capital and the capital costs are also lower and as I mentioned a long term value that is created. It is ESG forces long term sustainability by promoting responsible resource management and social responsibility.

Along with this I could put here a long term the reputation of the company is built and financial performance because the investors are there. The financial performance becomes better and access to capital is there. You would find many companies and there are frameworks that I will show you in the coming slides which are there in US.

And many investors are there who are willing to invest in the companies who follow through those frameworks. So, E is environment here in which carbon emissions and climate change mitigation, resource management and sustainable practices, biodiversity, that is the loss to biodiversity.

That is the preservation and conservation of biodiversity, waste reduction and circular economy initiatives are all part of it. In the social aspect of it, as I discussed about fair labour practices are there. Human rights, ethical supply chain management, community engagement, philanthropy, everything is part of social.

And on the other hand, governance talks about the risk management, the performance management, the business ethics and integrity. Then transparency and accountability is part of governance. This also focuses on preventing any unethical behavior or any fraud that could happen.



So, as I have talked about the components of ESG already, let me talk about one or two other points. That is, one is ESG, environmental and social governance.

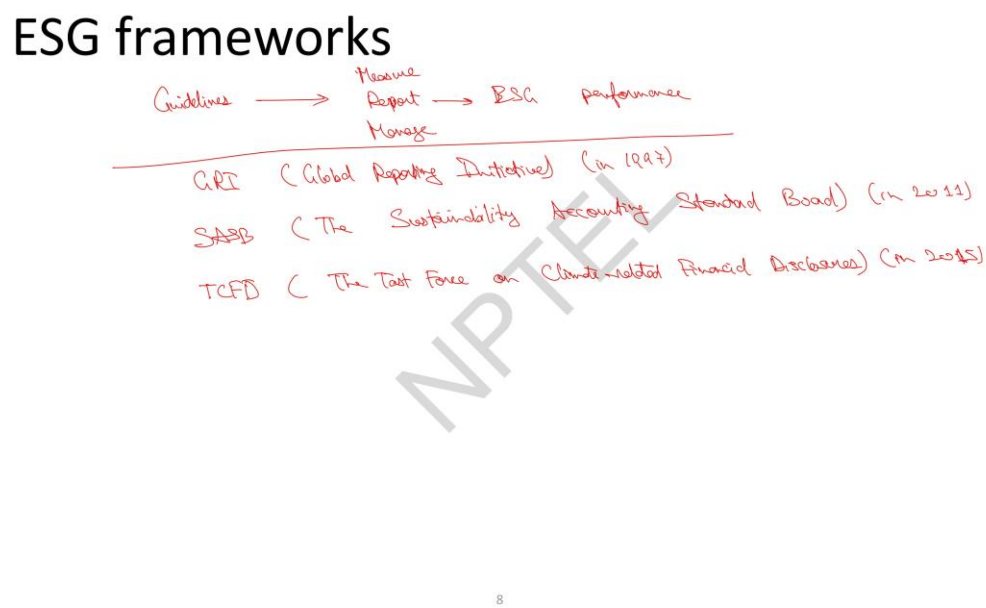
Then we have SRI, that is socially responsible investing. Along with it, we have the impact investing and green bonds. If I try to compare it, so let me put this is socially responsible investing. So, ESG considers all three pillars. All three pillars that is E, S and G. However, SRI focuses only upon the social and environmental.

However, the governance part is missing here. Then we have impact investing these also focus upon the social and environmental pillars, but the goal is to generate positive impact. So, green bonds on the other hand just the bonds. So, which are designed to finance environmental projects this focus mutually upon the environmental pillar only. Then ESG can be applied to any type of investment.

SRI could also be applied to any type of investment. Here impact investing can be also applied to any type of majorly these are equity investments because you need to develop your own system. And that would be shown to you in the coming lectures how do you develop your own carbon accounting system for your own product itself. When you need to attract investment as well you need to see whether you are actually talking about the complete ESG system. Or only SRI investments are there, those you wish to towards your business or impact investing is there.

Or just the green bonds people who just invest on the environmental areas only. So, here green bonds can only be applied to debt investments because these are bonds here. So, these green bonds are also regulated by ICMA, what is ICMA? It is International Capital Market Association. So, you can read further about the investment criteria for ESG.

For impact investing and from green bonds in various journals which are mentioned here in the reference slide of this PPT.



Then comes the ESG frameworks. ESG frameworks are sets of guidelines and standards that help companies to measure, report and management the ESG performance. So, it helps to measure report and manage ESG performance. So, what are these?

These are guidelines. Multiple frameworks, those are there. I will talk about two, three major of them. ESG frameworks can help companies to identify and assess their ESG risks and opportunities to set the ESG goals and targets. To track their progress against their goals, communicate their ESG performance to stakeholders.

There are multiple frameworks such as GRI is one of the frameworks that is Global Reporting Initiative. So, this is a most comprehensive ESE framework that is available. It provides guidance on how to report on a wide range of ESG issues including environmental, social, governments all the three. Then SASB is also famous that is the Sustainability Accounting Standard Board. So, SASB is a sector specific ESG framework.

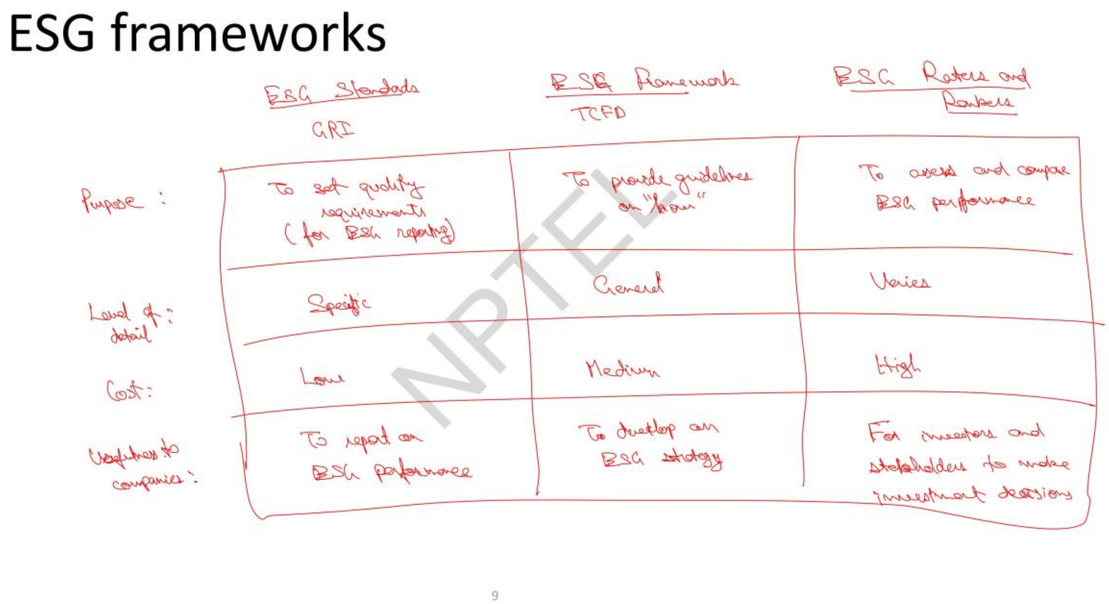
It provides guidance on how to report on ESG issues that are material to specific industries only. Then TCFD is also one of the frameworks. TCFD which is the task force. This is the task force on climate related financial disclosures. TCFD is a framework for companies to disclose their climate related risks and opportunities only.

So, GRI is renowned and globally accepted framework for sustainability it was established in 1997. So, this becomes one of the pioneering frameworks in the field of sustainability reporting.

Its major emphasis is on comprehensive sustainability reporting which goes beyond just financial performance or just going into the company's performance only. It delves into the governance aspects, it delves into the environmental aspects, it goes deep into the social aspects as well. So, one of the notable feature of GNI is to provision of clear standardized guidelines for the systems itself.

So, there are strengths and weaknesses of each of the frameworks that you can go through and read SASB is a Sustainability Accounting Standard Board known for its sector specific sustainability reporting as I mentioned. So, this was established quite later that is in 2011 and this is also clear in the realm of the sustainability reporting.

Then comes TCFD this is more recent this was developed in 2015. So, these frameworks are the guidelines that help you to measure your performance to report then to manage. TCFD provides a robust framework for the companies to report on climate risk in their financial filings promoting transparency.



Now, there are certain things I would like to discuss other than frameworks we have the ESG standards ESG standards we have ESG frameworks we have ESG raters and rankers. What are these? ESG standards are set of agreed upon ESG quality requirements. They provide a common language for companies to report their ESG performance and make it easier for investors and other stakeholders to compare different companies. GRI is one of the standards.

So standards do what? Standards are a set of agreed upon ESG quality requirements. They provide a common language for companies to report on their ESG performance which makes it easier for investors or other stakeholders to compare different companies. So GRI is typically an ESG standard. ESG framework if I talk about framework is a set of guidelines.

Now, GRI has turned to a standard only frameworks are there advanced systems as I mentioned the TCFD is a framework. Also, we have ESG raters and rankers. Raters and rankers are the organizations that assess the company's activities or company's performance.

They use their own methodologies to assign scores and rankings to companies which can be used by investors and other stakeholders to make investments and decisions. So, if I talk about the various characteristics, so I will just say the purpose of standards is what?

Purpose of standard is to set quality requirements. It is the quality requirement for ESG reporting and frameworks provide the guidelines. The purpose is to provide guidelines on how that is how to think about and how to apply ESG. So, this raters and rankers they helps to assess and compare companies ESG performance. Now level of detail that is required in these three systems is different level of detail.

Here standards need a specific level of detail because it is talking about the standard quality requirements then general information is there. We will talk about a framework and raters and rankers it varies whether what is the rating criteria here and it varies accordingly.

If we talk about the cost of holding them standards it is ok you can get it easily. So, this is low frameworks is medium when we compare it with the raters and rankers that is costing very high and usefulness. Usefulness for companies to report on their ESG performance.

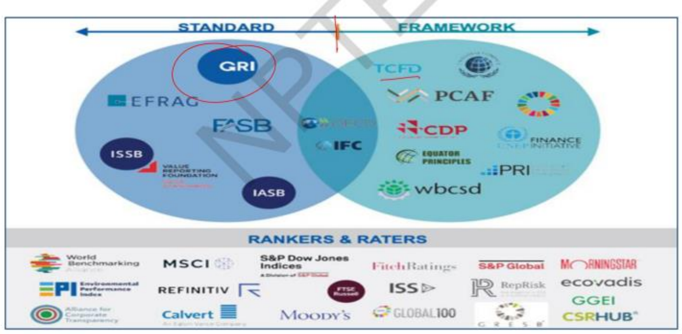
Usefulness I would put here to companies report on ESG performance only this is standard the frameworks are there to develop an ESG strategy. That is a complete set of guidelines are required now. And ESG raters and rankers have a usefulness to the companies that is to make their investment decisions.

This is for majorly investors because raters and rankers would attract the investors to read about the company. So, for investors and other stakeholders to make investment decisions this is what return the rankers.

ESG frameworks

Standards / Frameworks / Raters and Rankers

[Socially inclusive Product]



Source: Global Reporting Initiative

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So, if we try to put them in a form, this is a figure that is taken from the global reporting initiative. The source of the figure is global reporting initiative. So, this gives a clear delineation between what is a standard, what is a framework.

So, GRI is now a standard though it was developed as a framework, but now it is a standard that gives you a set of quality requirements. And the frameworks TCFT is framework other frameworks are also put here which gives you a complete set of guidelines to develop your own ESG system and rater and rankers.

Are here which gives a rating to your company rating to your company or the performance lot of information is required here by the retention rankers. This is when we try to compare between understanding differences between the types of organizations or types of the systems that is we are trying to compare standards frameworks and raters and rankers.

But this was just a quick introduction to what an ESG system is, what are ESG frameworks, then we have ESG standards, ESG raters and rankers. This lecture is delivered just for you to understand that there are certain requirements nowadays where a social cause companies which can have a carbon accounting better. For example, there are certain challenges.

So, there is a social marketing that has demonstrated success in various areas. For example, companies focusing on a product or a service in polio eradication, in in sanitization improvement and in tobacco control. So, making a tangible impact.

So, I will have to put here is you can design a socially inclusive public health campaigns leveraging social marketing have played a pivotal role in promoting healthy behaviors, disease prevention, health education also.

There are multiple aspects which are there in social and governance of them and connecting them to the environment, connecting them to the sustainable designs that you have. Anything that you design in the medical devices itself, medical devices which are there for the social cause and you can design it based upon the complete product cycle management.

There are devices which are developed which are cost effective in India. There are multiple devices which are there. For instance, there is now a handheld x-ray device that is being developed at IIT Kanpur.

There are other devices such as the ear bag suction pump which is a passive device that is without using of electricity those devices are developed. So, these devices are becoming more socially active because electricity is not used at all and this can be used at the remote areas where in India electricity has not been reached as well.

Multiple products could be designed. With this, I am closing my part of the course on carbon accounting and sustainable designs in product lifecycle management. And Dr. Prabal Pratap Singh will now take over to the next part of the course where you will learn to develop your own GUI to develop your own carbon accounting program.

Thank you.