

“LCM: Dissemination Strategy towards a more Sustainable Development for the world”

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Good afternoon. Thank you for inviting me to share with you my thoughts on sustainability, specifically on the session that relates to “LCM and emerging countries”.

In the following minutes I will address 3 main ideas: a proposition, a fact and a strategy.

First the proposition: to consider LCM as a step forward in the “life cycle thinking” process. That is to say, LCM as a means to put to practice LCT.

Second the fact: LCM is mainly geared towards application in business, currently used by what we would refer to as large private corporations that have headquarters and provide its products and services in different parts of the world.

Third and finally, the strategy: to disseminate LCM in all countries of the world as it were a “virus”, in order to foster sustainable development through the “epidemic characteristics” that seem to shape some of the most significant changes in our societies today.

According to Malcolm Gladwell, these characteristics are:

1. contagiousness,
2. the fact that little causes can have big effects and
3. that change happens at one dramatic moment referred as the “tipping point”

As I move along with the presentation, keep in mind these three characteristics and put them in context as they apply

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to the huge change LCM worldwide application could bring in our sustainable development journey.

And talking about context, let me digress a bit to comment on the term “**emerging countries**” which is directly related to this speech and for which I’m in conflict.

TERMS IN CONTEXT

“EMERGING COUNTRIES”

For many years now (I recall a similar dissertation I gave in Berlin in 1999 and also another one in South Africa in 2002), I have struggled with the terms “developing vs. developed countries”, “emerging vs. industrialized countries” or even “South vs. North”, finding that such generalizations may turn out to be very misleading, particularly when we are addressing worldwide sustainability.

As some of you may know, I was born, raised and continue to live in Costa Rica, a country some would classify today as an “economy in transition”. However, I would not classify INTEL, Wal-Mart, Holcim and other international corporations operating in Costa Rica, as well as many national enterprises, as “emerging businesses” for they all perform, today, to the highest worldwide standards, even more, some of these organizations are setting today, as we speak, the standards others will follow.

On the other hand, I personally would not classify myself either as anything related to a transition, or “emerging form anything”. In fact, one could argue I better fit the category of “very fortunate”, reserved for less than the top 10% of the human population today.

I do not mention such statements to debate the performance of these companies in Costa Rica or to talk about my social or economic status but rather, to illustrate that in all countries there are world quality enterprises and

also persons that lead lives in very different conditions and that such conditions vary in terms of quantity and content depending on the society we live in.

At this point there is no need to look at the other side of the coin, I am certain all of you can think of examples of less fortunate people and of environmentally underperforming companies in the so called “developed countries”.

Yet, to further illustrate the inaccuracy of such categories as a means to classify regions or even countries, let us look at some data for Chile and USA for example. (In all honesty, I have to tell you that I have chosen Chile just because our next **CILCA 2009** will be held in Santiago and I want to invite you all to be a part of the “dissemination strategy” by participating also on this coming International Conference on LC thinking).

Consider then, one health and one economic indicator to compare Chile and USA. In 2004 Chile reported an average income per capita of US\$5500.00, about 7.5 times smaller than that of USA. Based on this indicator alone one would classify Chile as an “economy in transition” or an “emerging country”.

On the other hand, at that same point in time, according to UNICEF, Chile and USA were exactly at the same level of “development” in terms of the number of children dying before age 5, both with mortality of 7 per every 1000 live births.

Were we further to compare other countries with this health indicator, one finds Czech Republic second only to Singapore, Iceland and Sweden, this is to say, above USA, Canada, Germany Netherlands, UK, France and many others.

Given all of the above, for the rest of this presentation I have opted to talk about persons and organizations or if need be, even about specific countries and regions as they

compare on different pre-established criteria to other countries and regions, and avoid reference to the unclear term of “emerging /countries or economies”.

ANOTHER TERM:

“LIFE CYCLE THINKING”

Another term to address is “LCT”, a concept on the making, especially when I started to push for its generalized use in LA, more than a decade ago. It is very satisfying to see it “propagate” as it has, in many international meetings such as this one, and in most publications, including but not limited to those promoted by the UNEP/SETAC International Life Cycle Initiative. The just published LCM GUIDE, refers to the term at least 10 times including both forewords by UNEP Director and SETAC President.

But why is it important to mention this? Because it is indeed becoming contagious and this “little” change in communication may prove to have a very large effect.

The original motivation to promote the use of this term came, in my case, from the first contact with LCA at the ISO community, in 1994.

At that time I found there was a great gap in the application and research on this tool for companies and universities located in different parts of the world and thus, a broader concept to encompass a holistic systematic science based approach to communicate and for better decision making appeared to be needed to help bridge and hopefully reduce such gap.

At the time, not one single company in Costa Rica or Central America was applying the tool for product evaluation and none of the Universities, private or public, were doing research, let alone, educating on the subject as part of the curricula. This is a gap of more than 20 years compared with some companies based in USA, Germany, Switzerland and the NL ... and even more years apart when

compared with higher education institutions in these same countries.

In addition, my observations at the time showed government owned enterprises in several countries in Latin America, and specifically in Costa Rica, offering services as complex and sophisticated as those provided by private firms in other parts of the world. For example, all telephone services –including cellular communication- energy generation and distribution continue to be under a single government agency in Costa Rica. It would prove to be a great challenge –it still is- to call the attention and introduce LC approaches to these government owned companies. But now, it is happening! They have incorporated LC thinking in their environmental management jargon...

Thus, the term “life cycle thinking” provides a good starting spark since, I have found that the “Life Cycle concept” is easily understood and accepted by most audiences...the challenge of course, is to put it correctly to practice. And, it is here that I find a great advancement with LCM.

SO, WE COME BACK TO THE PROPOSITION: “LIFE CYCLE MANAGEMENT” IS A STEP FORWARD IN LIFE CYCLE THINKING

It is my understanding that LCM provides a concrete way of putting to practice the “LC thinking” concept, not only for the private sector but also for the government enterprises around the world. If such is the case, is there a means to disseminate/propagate its application world wide?

During the past days and today we have heard who is applying LCM and how successful/challenging its application has proven to be.

It is evident that the application is indeed revolutionary for it takes distance from the piecemeal approach previously used to address specific environmental and social aspects, bringing to light all relevant issues, showing where and how the burdens or loads are being shifted and providing the systematic means to revise and improve decisions in time.

Yet, **LCM is a management tool on the making**, as we are all well aware. This making requires addressing many issues, including but not limited to the improvement of its genesis and current backbone for further development. I am referring of course to LCA (life cycle assessment), with all its implications in relation to data bases, inventories, impact assessment / categories, aggregation, reporting / communicating and peer review to mention a few of the issues that continue to be under worldwide discussion... and all of the above also as they could or not apply to social aspects as well!

A real opportunity then to work also on the “little causes that have great effects”.

In this sense, the UNEP/SETAC Initiative and several regional networks, such as ALCALA (Association for LCA in Latin America) provide an excellent platform for collaboration, exchange and improvement on LC related ideas, concepts and applications.

Again, think about the LCM guide...what great effect this “little” publication could have if all of us were to act as the “vehicle” for its dissemination!

Another “little cause” that I’m passionate about in these days is the WEAVING HANDS project and the ULE KIRA handbags you have all seen me wear. I’m so enthused about the effects this project is achieving that I even feel proud to be known at home, not any more as Ms. Quiros, the Engineer, but simply as the “bag lady”.

Basically the handbags (and other items) are made out of food packaging waste by a group of low income women in

Costa Rica. It came about as a possible solution to deal with waste that can not be treated or disposed of adequately in the region...in the best scenario, companies just pile up the waste, so it makes business sense to do “something” with this material.

The effects this little cause has had to date are to be found not only on environmental indicators but also on social aspects, for these women and their families, as well as in the new paradigm it conveys: “waste for some is a treasure for others”. A change of mind indeed, propagating also in the educational system of Costa Rica.

And, **EDUCATION** (including research) both formal and informal, is key for disseminating LCM.

Education is an ample term and I have many issues with the current formal system of education at all levels and for most parts of the world, since it has departed from fostering creativity and free thinking and thus hindering the love to study and learn just for the sake of learning, this is to say for the pursuit of truth, beauty and respect.

Specifically for Latin America, the July 2007 CEPAL report shows the number of university students in the region, –with the exception of Argentina- to be unacceptably small as compared to total population. Also, the portion of students on engineering or “hard” science based careers is quite low as compared to other countries in the world.

For the subject of this presentation, these statistics in the region translate as lack of “adequate human resource availability” a fact that also impacts a large portion of “local firms” which are then not able to perform as suppliers of international corporations for lack of efficiency, quality or technological actualization, limiting the possibility of successful development of productive value chains in Latin America or as expressed in the OECD/UN language: a condition that impairs “*functional upgrading*” within the

global value chains. (In other words, an impairment to implement LCM or perform LCAs!)

Furthermore, the local systems of innovation are weak and erratic. Expenditure on R&D and innovation in Latin America is very low (as it compares not only to USA and UE countries but also to Asia); this is particularly true for the private sector, both for national as well as international corporations.

The lack of interaction between the productive sector and the academia may require, as Cimoli suggests (2005)³ and as it has also high lighted by WBCSD Key Note Speaker, a direct link between public and private policies on education, management, science and technology.

In this sense, LCM should be brought to business schools, including not only private sector management careers but also to the teaching of public administration. Law schools geared towards policy development should include LC approaches. Faculties of education must update curricula for teachers to incorporate LC thinking and LC approaches to products, sustainable consumption and production in a global citizenship context.

The “**SISTER CLASSROOMS PROJECT**” , a pilot to bring life cycle based approach education to schools around the world, with support form the Swedish Government in charge of the Sustainable Life Styles Marraquesh Task Force, merits attention if only, for the great possibilities it opens to disseminate the principles and concepts of LC thinking, at the earliest time in the educational process.

The pilot currently works with both rural and urban selected classrooms located in 3 countries: BRAZIL, COSTA RICA and USA, at educational levels that range from 6th to 10th grade. An as a step forward, the Faculty of Educology of

³ As referenced by the CEPAL report on LA, June 2007

the National University of Costa Rica is working on changing curricula to include LC teaching for the whole country.

Again...an apparently tiny pilot project may prove to have very large impact.

Media plays an important role in bringing to light best practices, raising public awareness and shaping public opinion, as such, communication careers would benefit from education on LC principles and LCM practices.

Last but not least, **engineering schools** should offer LCA courses both at undergraduate as well as the graduate and post graduate level. I insist on bringing LC teaching to science based careers, since, to date, most of the major advancements made on LCA and on LC approaches in the world, come from professionals with such scientific background. And, we have heard how the WBCSD wants the science behind the tools! (Indeed, something we all want!)

The **promotion of scientific research** around the world can not be overemphasized especially as it relates to my understanding of world sustainability, first and lastly based on the “**public liberty**” as expressed by Polanyi in terms of the “**intellectual” spontaneous orders**. (Science is Polanyi’s principal model for public liberty to reign in a free society and for a good society to flourish. In his words, one animated by a *belief in transcendent realities: truth, justice, charity and toleration.*)

To summarize this point, and coming back to the private business sector, it is through the sharing of scientific research, advancements and application (R&D) that trans-national corporations have the most pressing and unavoidable role to perform in the context of sustainability.

They are called at the very least, to build capacity at their local subsidiaries or representatives. LCM requires good data from the source and communication at all levels, this in turn provides an excellent opportunity to bring on board local parties to participate on a technological transfer that benefits both the local as well as the international stakeholders. It does not proceed to have “main office” fully engaged on LCM with no regards towards the management practices followed in other parts of the world by its subsidiaries and representatives. The holistic approach demands inclusion of all on similar terms.

Further more, the interaction with interested parties both up as well as down stream of the commercial chain also provides an excellent opportunity to foster LCM application with suppliers for example, facilitating implementation for SMEs. Active participation of such trans-national corporations with chambers and similar sector associations at international and national levels will benefit other enterprises through best practice sharing and promotes “raising the bar” for incremental improvement.

I have put great emphasis on large corporation’s role to disseminate LCM for, as I have stated above, LCM is currently more widely applied in the private business sector.

In this sense, it is only fair also to state that

- efforts continue to be needed to open the economies to competition around the world;
- abrogate state monopolies and
- incorporate this management tool also into the government sector, primarily in those countries where most of the “commanding heights” are still under government control.

From a general standpoint, a reinforcement of the rule of law and clarity on property rights are indispensable

institutional arrangements for any sustainable application of LC approaches . A market process is not feasible without these institutions in place.

As we all know poor inhabitants of world, about 5/6 of humanity,
have things but lack the procedures to represent their property and generate capital,
they have homes but not titles,
crops but no deeds,
business but not statues of incorporation⁴.

There will be no real change towards sustainability, if we cannot find the key to awaken the potentialities and creativity of this 5/6 of humanity that today struggle with the dark consequences of poverty.

Thus, specifically for LCM application and in general to have a more sustainable world, it appears the transformation has to take place moving from predominantly extralegal property arrangements towards a + formal unified legal property system in all parts of the world.

Having said the above and after attending this Conference on LCM, I'm truly convinced we could be at the verge of the "tipping point" for LC thinking to "catch like fire". It is clear contagiousness is present and, little causes are happening all around the world!, more than we could imagine...

⁴ Against the view that success is determined by cultural differences, Hernando de Soto in his book "The Mystery of Capital" finds that capital creation is a process buried deep in the legal structure of its property systems.

If LCM is to be part of our journey towards sustainability, and not just the new management fad, we must continue to disseminate its application to governments, businesses and citizens in all parts of the world so that it takes root in the acts of every day life, in the creativity of us humans and in the exercise of our freedom, then, and only then, the tipping moment towards sustainability will change the course of human kind.

For indeed, in the words of Hayek:

“human society is the product of human action,
not of human design”.

Thank for your attention.