



Sustainability: Crisis and Opportunity

Remarks By:

Anne M. Mulcahy
Chairman and Chief Executive Officer
Xerox Corporation
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Thank you, Bill, for that terrific introduction. I just hope it's not the high-point of this afternoon's program. You've set a very high standard.

It's great to be here and especially gratifying to be the first Presidential Colloquium speaker under your leadership. I know your tenure will be long and distinguished. We're proud to be one of your partners - - and you can count on us to continue to be with you far into the future.

This has been a great and long partnership. I believe that's in large measure because RIT and Xerox share so many values - - a deep belief in the power of education to transform lives ... a passion for diversity and inclusion in all their forms ... an assumption that technology is our servant and not our master ... and an eagerness to shoulder the challenges of environmental stewardship.

The RIT-Xerox partnership is also so strong and enduring because we both benefit so much from one another. You've sent us thousands of your graduates down through the years and provided us access to the amazing pool of intellectual capital that resides on this campus. And we've provided financial resources to RIT as well as access to the intellectual capital within our company.

A testimony to the strength of the partnership is that a Xerox person has served on RIT's Board of Trustees for as long as any of us can remember. Currently that role is filled by Wim Appelo, one of our most senior executives and a passionate friend and advocate of the University. Wim, why don't you stand so we all know who you are?

What I'd like to do with our time together is:

- Briefly reflect on the condition of Planet Earth as we gather on this bucolic campus.

- Discuss a terrible Hobson's-choice - - whether to focus on conserving our environment or lift up the poor through economic development.
- Argue that it's a false choice - - that we can and must do both.
- Use Xerox as an example - - both of what can be done and how much remains to be done.
- And leave plenty of time for dialogue.

That strikes me as an ambitious agenda so let's plunge right in.

If Charles Dickens were alive today he just might argue that this is a tale of two worlds. One world enjoys enormous wealth. It's well educated, well fed and well connected. It has discretionary income, the ability to travel at will and the resources to assure that its children will grow into a world of extraordinary abundance and opportunity. Everyone in this room is part of that world - - and we're a distinct minority. The vast majority of the people on our planet live in a very, very different reality.

In his ground-breaking book - - entitled Capitalism At The Crossroads - - Stuart Hart argues that while the wealthy in developed countries are doing better, the vast majority of nations and people have been largely untouched by the apparent triumph of capitalism and democracy over the past few decades.

The \$40 billion world economy is simply not growing fast enough to provide jobs for the tens of millions of young people around the world joining the labor force each year. It turns out that our Depression-era parents were right after all. The rich really do get richer and the poor - - well most of them stand still at best.

Consider a few facts that give this problem some context:

- One-fifth of the world's people goes to bed hungry every night and wakes up every morning without hope.
- Four billion people - - that's two-thirds of the world's population - - lives on less than \$2 a day.

- More than one billion of the world's population can't read or write.
- More than 40 percent of the world does not have basic sanitation.
- More than a billion people drink water that is unsafe - - leading to the death each year of two million children.

This is a grim reality and it may get grimmer still. So what do we do?

The solution to lifting up the world's poor and disenfranchised is economic development. Xerox operates in more than a hundred countries around the world and I visit a lot of them. It's so clear to me that democracy and free enterprise on the one hand and economic development and quality of life on the other hand are absolutely linked and

synergistic. A little investment, a little opportunity and man's natural entrepreneurial spirit leads to more capital, more investment, more jobs and better lives. This is obviously not a new thought but it sure comes into sharp focus when you travel as much as I do.

Like it or not, multinational companies are the world's best engines of economic growth. Multinationals account for more than 25 percent of the world's economic output. During the decade of the nineties, foreign investment by multinationals overtook government assistance and now exceeds it by a factor of five to one.

This is really quite an extraordinary development. More and more economic power resides in the corporate sector. In fact, the world's ten largest companies have annual revenues that are larger than the Gross National Product of the hundred poorest countries.

Now here's the rub. The more the world develops, the more strain we put on our already fragile environment. As a baby boomer born in 1952, I entered a world of about two billion people. By the time I started my career at Xerox, it had grown to nearly four billion. Now it's six billion and if I live to a ripe old age it will be eight billion.

Think about that - - the world's population will have grown from two billion to eight billion in my lifetime. As more and more people seek opportunity, there is going to be an unprecedented and massive shift in human population from rural to urban areas.

As a point of reference, Goldman Sachs just published a report on the Indian economy. About 30 villagers are showing up in Indian cities every minute of every day - - a trend that is likely to continue for some forty years. Do the math. Better yet, I'll do it for you.

If Goldman Sachs is roughly right, about 700 million people will flock to new urban centers throughout India. Today the world has fewer than ten cities with populations of more than ten million people. In just forty years the world will have 400 cities with populations of more than ten million people.

We can't support the population we have today. Imagine what will happen when this population shift occurs. Just think about the strain on water supplies, food systems and energy production along with the inevitable explosion in greenhouse gas emissions, water pollution and global warming. It's happening today - - and it will only get worse.

So it's quite a conundrum. The solution to lifting the world's poor out of poverty, hunger and disease is economic development and economic development may destroy our

planet. Of course, I didn't come here today to leave you with that message.

There is a middle ground and it's called "sustainable development." That's a term that gets thrown around a lot. I define it as "the place where the world's economies, societies and the environment can all thrive in a harmonious state indefinitely." Some people call it the triple-bottom-line - - operating businesses in a way in which economies grow, societies benefit and the environment is protected. And it's not as difficult as you might think.

Xerox is a good case in point. We've been working at sustainability for decades - - long before "green" was in vogue. We're sometimes referred to as part of the "Old Green Guard."

Our commitment to sustainability began in the 1960s as the right thing to do. That early commitment has led us on an endlessly fascinating journey. We pioneered two-sided copying, print-on-demand, the use of recycled paper in the office, recycling toner cartridges and the promulgation of tough green standards for our paper suppliers.

The more we have integrated sustainability into our business operations, the more it has become a part of our DNA. Now we like to think of ourselves as a leader, still pushing the boundaries of what is possible.

That thinking has taken us to some interesting places and produced some significant results. One concrete example: we were the first company in our industry to remanufacture and reuse parts and components. As a result, we estimate that we have given new life to the equivalent of more than 2.8 million products. Last year alone, we diverted

more than 122 million pounds of waste from landfills. Our commitment to sustainability doesn't stop there.

- We've reduced air emissions from our facilities by 94 percent in the past 16 years.
- We're changing the way we manufacture toners, yielding an estimated 20 percent reduction in energy demand.
- Our Palo Alto Research Center - - through its Clean Tech research initiatives - - is focusing on delivering affordable renewable energy, clean air and water and other environmentally-friendly solutions - - not just for Xerox but across industry.

Trust me when I say that the list of Xerox innovations is long. I bring it up not to boast, but to make a point. We

were an early leader in the “green” movement because we thought it was the right thing to do for the environment. But we discovered something else along the way. Every one of our innovations ended up either saving us money or creating new markets and new revenue. We found in other words that we don’t have to choose between the environment and profit. We can do both.

That insight has given us the courage and confidence to become advocates for less paper and smarter paper. There is quite an irony in all this. I joined Xerox in 1976, the year after Business Week proclaimed that the office of the future was just around the corner. In that issue, Business Week coined the term “the paperless office.” My father - - an editor and avid reader - - had seen the article and wondered whether casting my lot with Xerox was a good idea. And when I came to Xerox I found that the company’s research

labs were hard at work finding ways to survive in a world without paper.

It turns out we were worried about the wrong issue. Here we are three decades later and the use of paper continues to escalate. A bigger problem is that as the world's population continues to grow and become more developed, there simply won't be enough paper to go around.

Here are a few facts to make the point:

- Since the Business Week article was published, paper consumption across the globe has more than tripled.
- Office workers throw away 45 percent of everything they print by the end of the day - - and then they re-print much of it again and again and again.

- The number of pages printed each year now stands at something like 45 trillion.
- In the United States alone, we go through more than 700 pounds of paper a year for every man, woman and child.

The theory always was that a networked office would be a paperless office. It turns out that connecting an office to the Internet increases paper consumption by 40 percent. You might think that this is music to the ears of Xerox. In fact, it scares the heck out of us. The planet can't sustain today's demand for paper let alone absorb the increased demand that is coming at us like a tsunami. So we're hard at work on four fronts.

First, we're investing in the development of new kinds of paper like erasable paper that can be used over and over

and high-yield paper which uses 90 percent of the tree. That's twice as much of the tree as typical paper.

Second, we're working with our customers to help them rely more and more on digital documents which use no paper, two-sided copying which uses half the paper and recycled paper which uses paper more efficiently.

Third, we're working with our paper suppliers to ensure that they are in strict compliance with our demanding standards - - both on how and where they harvest trees as well as how they re-forest.

And fourth, we're working with partners like The Nature Conservancy to identify best practices in forest management and sharing them around the world.

If I have any quibble with Stuart Hart and Capitalism At The Crossroads, it's that he seems to overstate the power of the modern corporation. He argues - - and I'm quoting him - - that "business, more than government or civil society, is uniquely equipped to lead us toward a more sustainable world in the years ahead. Corporations are the only entity in the world today with the technology, resources, capacity and global reach required to lead us to a sustainable world that lifts all its people out of poverty."

There's no denying the influence and power of the modern corporation, but I hardly believe we can do this by ourselves. The challenges are too large and the solutions too complex for any segment of society to go it alone. We need help - - from government, from NGOs and from academia. If ever there was a need for partnership and collaboration, that time is now.

My wish list for what the business community needs is long. From government we need more investment in pure research. We need to make it easier for students from other countries to study here and stay here. And we need political leadership that recognizes and embraces the sustainability issues our world faces. In all these areas and more we've been heading in precisely the wrong direction.

We also desperately need help from our universities. Let me give you just two examples.

The first has to do with the critical shortage of scientists and engineers entering the nation's workforce. I often give a speech on this issue, but let me try to net it out:

- The number of American college students receiving degrees in science has fallen to seventeenth in the world.

- The National Science Foundation reports that 21 percent of all science degrees are being awarded by Chinese universities. American universities, by contrast, account for only 6 percent - - behind not only China but also the European Community, Japan, Russia and India and barely ahead of South Korea.
- By 2010 - - two years from now - - 90 percent of the world's engineers will live in Asia.

Why is this so important? Because America's horn of plenty over the past century has been filled by our ability to innovate and create new technologies that spur economic growth and improve the quality of our lives. The race to stay ahead in the brain race is critical to our future world leadership and we need our government, our education system and the private sector to step up to the challenge - - big time.

The second area in which we need the help of the university is in research. We can't do this alone, nor should we. Even President Kennedy's challenge to our nation some forty years ago to put a man on the moon pales by comparison to the challenges of building a sustainable world. We need all the intellectual capital we can muster.

Now I know I may be in danger of preaching to the choir. On both these issues - - developing scientists and engineers and focusing on sustainability - - RIT is leading.

On the education front, you're adding new engineering majors and expanding your graduate programs. You're recruiting women and minorities to RIT and making it easier for them to stay - - and you're doing it without compromising your quest for excellence.

And on the sustainability front, RIT is known around the world for its pioneering work in remanufacturing and recycling. And now the Golisano Institute for Sustainability is taking that expertise on a fascinating journey to new frontiers in the quest for a sustainable world.

I just toured some of the Institute's labs and the work is extraordinary. There's not much I can demonstrate from the podium, but I did bring one small example that speaks volumes. Here's an old cleaning roller that's used in laser printers like the type that Xerox distributes. It may not look like much but it keeps your prints free of unwanted "black spots."

Each one costs about two dollars to purchase. It used to be that when they got dirty like this they were tossed out and added to landfill. It's a symbol to me of old thinking. And it's the kind of thinking that RIT is at the forefront of

changing. There is technology over in the labs that cleans the roller and makes it as useful as new. Take a look. It takes two cents to clean it. Two dollars to buy, two cents to clean. Less landfill. Less energy consumption. That's what I call "green."

In the great scheme of things, it may seem small. But it's representative of hundreds of initiatives at RIT that have several things in common. They're new ways of looking at old problems. They're both innovative and usable - - right now. They're focused on what is arguably the largest single crisis and the largest single opportunity of our time - - building a sustainable world for our children and grandchildren.

I think that's probably a good place to pause and start our dialogue. I'm open to taking our discussion wherever you like. Who has a question or comment? (Q&A begins)

Just before our dialogue I was talking about two broad ways in which our universities can help our world become more sustainable - - by educating more scientists, engineers and innovators and by doing research on sustainability.

RIT does both and does them especially well. We feel very fortunate to have you in our backyard and we treasure our partnership. That's why I'm so pleased to be able to announce today the next step in our journey together. The people of Xerox - - many of whom are here today - - are investing \$2 million over five years in RIT's Golisano Institute for Sustainability. The investment will be focused on fostering new sustainable technologies and talent development.

David Kearns - - a son of Rochester and one of my predecessors at the helm of Xerox - - used to say that most important things in business are races with no finish lines.

That is clearly true of sustainability. The more we learn the more we recognize what is possible. The more we do, the more we realize how much more we need to do. The more we dream, the higher we set out sights.

President Destler, we're looking forward to a long and productive partnership. Thanks for inviting me today. Thanks for all you do to lead this great institution. And thanks to all of you for attending.

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