

Improving processes for good in East Africa

By Andrew Parris, *East Africa Regional Office, World Vision International, Nairobi, Kenya*

Abstract

Purpose – This article describes World Vision’s motivation, context, experience, and learning in improving processes in East Africa. It demonstrates that Lean and Six Sigma TQM approaches apply to an international non-governmental organisation (INGO) operating in East Africa, and that they can deliver significant process improvements.

Design/methodology/approach – The findings come from initiating process improvement in World Vision in East Africa, observing and reflecting on this experience, and measuring improvements achieved through process improvement projects conducted by World Vision East African staff.

Findings – The INGO and East African contexts provide unique challenges to and demonstrate a strong need for process excellence. However, a standard process improvement approach can be used. A key segment of World Vision staff in East Africa has caught the vision of process excellence, understood and applied TQM concepts and tools, and significantly improved key processes, for example, reduced by 40-80% the average time to procure items and recruit new staff. We have reduced annual expenses by nearly \$1,000,000. Such improvements help World Vision to achieve better outcomes with existing funding, people, and other resources.

Originality/value – This article demonstrates that Lean and Six Sigma apply to and are vital for both INGOs and the East African context. It describes World Vision Process Excellence and improvements achieved. It presents challenges faced and lessons learned along the way. Finally, it calls on others to join the Lean Six Sigma TQM journey in NGOs and East Africa.

Keywords – Lean, Six Sigma, Process Improvement, Process Excellence, NGO, non-profit, World Vision, humanitarian, Africa, East Africa

Article Classification – Case Study

Introduction

Corporations in the developed world have proven that successful Lean Six Sigma process improvement TQM approaches can deliver increased profit, cash flow, customer satisfaction, and market share. But do Lean and Six Sigma apply to the non-profit world of international non-governmental organisations (INGOs) and to the developing economy context of East Africa? This article shares the Lean Six Sigma experience of World Vision, one of the world’s largest INGOs, in Kenya and other East African countries. We begin with a brief introduction to Lean, Six Sigma, process excellence, World Vision, and East Africa.

The author would like to thank Green Belt Abebe Nigatu, People & Culture (HR) Director for World Vision Ethiopia, and Black Belt Tesfaye Bekele, Senior Manager, Organisational Effectiveness for World Vision South Sudan, for their effective leadership of process improvement in their national offices. I also want to thank the many World Vision Green Belts who are facilitating changes both big and small to improve our processes so we can better serve the vulnerable children, families and communities where we work. Their good work made this article possible. Special thanks to Abebe Nigatu and Steve Bell (www.leanitstrategies.com) for the valuable ideas they contributed to this paper.

Lean, Six Sigma, and process excellence

Lean is an approach to process improvement and organisational excellence focused on eliminating waste and providing value for customers. In *The Machine That Changed the World* Womack et al. (1991) use the term *Lean* to describe the Toyota Production System, which they argued led to the significant rise and success of Toyota in the 1970s and 1980s. *Lean* continues to this day, and has been adopted by countless organisations across many service industries, including healthcare, non-profits, and even churches (Pope, et al., 2004). According to Womack and Jones (1996), the key elements of *Lean* are:

- identify what is of value from the customer's perspective and eliminate everything that does not add value to the customer
- make processes flow in response to the pull (demand) of the customer
- draw on all employees to continuously improve and innovate.

Most *Lean* experts agree that companies cannot become *lean* by applying *Lean* tools (such as Kanban and Poka Yoke) alone. They must apply *Lean* thinking and principles. Spear & Bowen (1999) identified four basic rules of how work in Toyota is specified, connected, flowed, and improved. Spear (2004) identified the following four fundamental principles underlying the *Lean* system:

- one must observe the actual work being done
- experiment (test) proposed changes
- experiment as frequently as possible
- managers should coach, not fix.

Six Sigma is an approach to process improvement and organisational excellence focused on eliminating variation and making data-driven decisions. Motorola started *Six Sigma* as they realised the need to significantly reduce variation in order to compete successfully. General Electric, under the leadership of Jack Welch, made *Six Sigma* a cornerstone of its corporate culture and used it to generate billions of dollars of savings annually (Pande, et al., 2000). The key elements of *Six Sigma* are:

- gather and analyse data to make informed decisions
- eliminate the variation that drives waste
- solve the root causes of problems, rather than fixing recurring mistakes and defects.

Lean and *Six Sigma* overlap in many of their concepts and tools. For example, both standardise and measure processes, and both insist on continuous improvement. Both *Lean* and *Six Sigma* also require a fundamental paradigm change from accepting problems and poor performance to revealing and solving problems, and making improvements in pursuit of excellence. And both rely on an equipped and empowered workforce to make improvements.

In the past 20 or so years, corporations across the globe have used *Lean* and *Six Sigma* to improve competitiveness and profitability. Some pursue (or prioritise) one or the other, while others, such as Lockheed Martin, combine them into a unified approach (George, 2003).

Processes are the way organisations do the things they do on a repeated basis. Therefore, we can say that *process excellence* is excellence in how an organisation does its work. We will provide a more specific definition when we discuss World Vision Process Excellence.

World Vision¹

Moved by the plight of suffering children, Reverend Bob Pierce, an American evangelist, started World Vision in 1950 to help children orphaned in the Korean War. World Vision began child sponsorship in 1953 to provide long-term care for children in crisis. Since then, World Vision has expanded geographically to Latin America, Africa, Eastern Europe, the Middle East, and other parts of Asia. World Vision also expanded the scope of its work to include community development, disaster preparation and response, and advocacy for the poor. Including its microfinance subsidiary VisionFund International, World Vision's over 44,000 employees implement programmes of transformational development (Myers, 2011), disaster management, and promotion of justice in nearly 100 countries to realise its vision of every child having "life in all its fullness." World Vision and its many partners contribute to achieving the Millennium Development Goals (MDGs) (McArthur, 2013). In April 2013, World Vision Kenya was awarded the 2013 Lifetime Achievement Award by the Millennium Development Goals Trust Fund in Kenya for sustainable programmes that directly contribute to the realization of the MDGs.

World Vision started work in Ethiopia in 1971 to provide emergency relief to Sudanese refugees, and in Kenya in 1974 in response to a severe drought and famine. World Vision provided life-saving relief to help save millions of lives in the 1984/85 drought. In East Africa and globally, World Vision works with communities to:

- increase food security for families
- improve access to healthcare
- help children to stay in school and learn
- provide children and families with clean drinking water
- provide care and support to people and children living with and affected by HIV and AIDS
- provide microfinance loans for small businesses
- increase resilience to disasters such as drought
- protect and care for children.

For the first thirty years, World Vision was run by three pastors. Now, World Vision is run by business professionals. We are still a Christian organisation, but now as one of the largest INGOs in the world, we strive to integrate the best business methods together with our core values to most effectively and efficiently serve the most vulnerable children across the globe with God's love.

Kenya and East Africa

Error! Reference source not found. shows Kenya, Ethiopia, and the seven other East African countries in which World Vision works, namely Sudan, South Sudan, Uganda, Rwanda, Burundi, Tanzania, and Somalia.

The Republic of Kenya lies on the equator and has a population of approximately 42 million people. Federal Democratic Republic of Ethiopia lies just north of

¹ <http://www.wvi.org/>



Figure 1. East Africa, based on (UN, 2011)

Kenya and has approximately 85 million people. (United Nations Development Program (UNDP), 2012) The human development indicators shown in Table I for these two countries compared to the USA reveal significant poverty.

| Indicator (UNDP, 2012) | Kenya | Ethiopia | USA |
|------------------------------------|-------|----------|--------|
| Life expectancy at birth | 57.1 | 59.3 | 78.5 |
| Mean years of schooling | 7.0 | 1.5 | 12.4 |
| Under 5 mortality per 1,000 births | 84 | 104 | 8 |
| GDP per capita (\$) | 1,428 | 848 | 41,761 |

Table I. Human development indicators

Unique challenges to process excellence in INGOs

INGOs are non-profit organisations that operate across borders and are not affiliated with a government. They have unique challenges to process excellence compared to for-profit organisations. The following are some personal observations:

- *INGOs have no profit motive.* INGOs exist to fulfil a mission, not to generate a profit. While INGOs have a "higher" calling, for some reason the drive for financial gain seems to motivate employees to process excellence more than the drive to save lives or help poor families escape poverty. A possible explanation for this is that the impact of process excellence on profit, loss, and cash flow is easier to see than the impact it has on an INGO's beneficiaries. Whatever the reason, it seems that INGOs need extra motivation to pursue process excellence.
- *People come to work for INGOs because they want to help others.* They generally care more about people than money or process. Consequently, INGO employees typically have less of a business mentality about them, which means they are likely to be less driven to maximise efficiency in their work, compared to their for-profit counterparts. Seeking to not offend their colleagues, they hesitate to critique them when problems arise. Being creative in spirit, many INGO staff take pride in doing things differently from others, rather than in standard, repeatable, measurable, and more efficient ways.
- *Humanitarian work by its nature is complex, unpredictable, and intensely people-oriented.* These characteristics seem to naturally carry over into the internal processes of the organisation, with the result that processes are also complex and unpredictable, and people rely more on personal relationships than standard processes to get things done.
- *INGOs are more likely to have an organisational decision-making policy that favours local autonomy over centralisation.* This can lead to inefficiencies and even diseconomies of scale due to the effort needed to work together across the ensuing differences and to recreate almost the same thing many times in different functions and countries.

These historical factors have led to inflexible, bureaucratic process with too many hand-offs, reviews, and approvals. These poorly integrated processes burden our staff with their long span times, poor quality, and high costs.

However, in spite of these unique challenges, INGOs also have many similarities to multinational corporations (MNCs). For example, INGOS and MNCs have in common support functions such as Human Resources, Finance, Supply Chain, and IT. INGOs should operate these with professionalism, efficiency, and effectiveness on par with or better than the best MNCs.

In addition to these unique challenges, we note some trends affecting INGOs.

- *The contexts in which INGOs work are becoming increasingly dynamic and complex.* This means INGO processes must be more capable of responding effectively to bring life-giving assistance in increasingly difficult situations.
- *Donors and governments are demanding greater impact, transparency, and accountability with less funding.* Competition for fewer resources and demands for greater responsiveness and measured impact create additional pressure to do more with less.
- *MNCs and sovereign wealth funds are making significant and long-term investments in micro and macro projects in developing nations.* Therefore, INGOs must find new, innovate ways to collaborate with these newer players.
- *Technological and communications advances are significantly disrupting legacy approaches to programmatic and organisational effectiveness.* These advances both permit and require rapid and agile adaptation and innovation from INGOs and their employees.
- *Developing nations are generally urbanising faster and growing faster economically than developed nations.* This requires INGOs to change where and how they work, and how they provide value to the people they serve.

These trends oblige INGOs to more quickly experiment, learn from experience, adopt new ways of doing things, and adapt themselves to their changing contexts.

Unique challenges to process excellence in East Africa

Due to continuing economic, environmental, cultural, and political difficulties, life in Kenya and East Africa continues to be difficult and somewhat unpredictable. To quote the book title of one of Africa's most famous contemporary authors, Chinua Achebe (recently deceased), "Things Fall Apart." Naturally, the life of African organisations reflects these difficulties and the African culture. The following challenges stand out as of greatest importance in East Africa:

- *Low level of economic development.* Governments, organisations, and individuals use the scarce money and resources to cover basic needs, which means little remains to invest in innovation and improvement. This leads to fragile, outdated, inefficient, and ineffective infrastructure, equipment/tools, and processes. In this context, environmental, economic, or political crises cause great disruptions in systems and processes.
- *Timeliness is not a priority.* African cultures emphasise people and relationships over time and efficiency. Meetings and social events typically start late. This lateness is acceptable and even expected. However, Africans commonly lament about it and wish it were not so. Some Africans attribute their lack of development to this, as in the following quote from Nelson Mandela, "South Africans have no concept of time and this is also why we can't solve poverty and social problems [...]" (Mandela, 2003) However, it is important to note that the African emphasis on people and relationships has many social advantages compared to the West's emphasis on time.

Meetings in "Africa Time"

Meetings are often scheduled to begin before the organisers intend to begin, because they know people will arrive late. And people arrive late because they know that meetings don't begin on time!

- *High level of corruption.* Because of often rampant corruption, many transactions must be reviewed and approved to minimise fraud and bribery. These extra reviews and approvals burden processes. Some of them aren't even helpful because the reviewers and approvers are too far removed to know what's really going on, and/or they are redundant.
- *People don't follow written instructions.* Even when written process instructions exist, people generally don't read or follow them. This seems to be because there are few written instructions to follow. Even when written instructions exist, they are either poorly written or unavailable, or things are so fluid that they quickly become outdated. Consequently, people become accustomed to figuring things out through trial and error or asking colleagues who also aren't following written instructions.
- *Poor quality is the norm.* Similarly, poor quality and problems are so common that people simply accept and expect them. Needless to say, this is the opposite mentality than the one needed for continuous improvement.
- *It's not a problem until it's a problem.* Many things can and do go wrong. Because it's hard to predict what will go wrong next, and with the limited resources available, people tend to respond to problems only when they occur, rather than proactively preventing them by addressing root causes. This understandable habit, however, focuses attention on current problems rather than causes and leads to reactive fire fighting that is always trying to recover from difficulties.
- *Life is unpredictable.* Even with the best planning, things often don't turn out as one expects due to unpredictable factors that are truly beyond one's control. Variation and waste simply are greater here than in developed countries, due to the challenges identified above. This unpredictability stifles innovation because it makes improvement more difficult and less fruitful.
- *Workers are not expected to innovate.* Hierarchical cultures in Africa tend to relegate the role of workers to simply doing their jobs, rather than expecting them also to question why things are done as they are and to make things better. This also means most workers spend their energy struggling with poorly designed and complex processes, rather than asking "Why?" and making them better.

These issues reveal significant challenges to process excellence in the East African context.

Why process excellence is vital for INGOs

As we have already observed, non-profits (including INGOs) usually lag behind their for-profit counterparts in their pursuit of process excellence. But it should not be so. In an MNC like General Electric, falling short of excellence may mean employees lose their jobs and shareholders don't see the value of their portfolios increase. In an INGO like World Vision, falling short of excellence may mean that hungry children don't eat, mothers die in childbirth, and girls don't go to school. The need for process excellence in INGOs is much greater because poor performance negatively impacts the lives of the neediest and most vulnerable people in the world. Because of the challenges that INGOs face and their life-impacting missions, they can't be satisfied with "good enough." Rather, INGOs must pursue process excellence.

Bradley, *et al.* (2003) estimated that the nonprofit sector in the United States could free up \$100 billion annually by improving its management practices. The humanitarian community and donors are

calling for increased INGO effectiveness and efficiency. In his recent Annual Letter, Bill Gates (2013) made the case for using measurement and analysis to drive improvement to more effectively combat poverty. Several voices (Diaz-Otero, 2011; Kufa, 2012) are calling for INGOs to apply Lean and Six Sigma to deliver better and faster, and to reduce costs. One of these voices, Steve Bell, a Lean IT pioneer and faculty member of the Lean Enterprise Institute (www.lean.org), founded Lean4NGO (www.lean4ngo.org) to leverage the principles, systems and tools of Lean Thinking to improve efficiency and effectiveness of NGOs. The United Nations (PEX, 2011) and some NGOs, such as CCBRT² in Tanzania, are beginning to apply and benefit from Lean and Six Sigma.

From the above, we conclude that pursuing process excellence in INGOs through Lean and Six Sigma is both vital and possible.

Why process excellence is vital for East Africa

Because of the poverty in East Africa, the challenges to process excellence identified above have devastating effects. Similar to the consequences in an INGO, poor processes in East Africa can result in children going hungry, working rather than going to school, or dying due to lack of medical care. To address these many challenges, governments, businesses, and non-profit organisations must fully commit to and pursue process excellence with the best available methods, such as Lean and Six Sigma. Some are already doing this.

The Japanese International Cooperation Agency (JICA) set up the Ethiopian Kaizen Institute based on a personal request from the late Ethiopian Prime Minister Meles Zenawi (GRIPS Development Forum (GDF), 2012). JICA has been partnering with the Ethiopian government to help small and medium size private companies apply *kaizen* (Lean) in Ethiopia.

In *Introducing Kaizen in Africa*, Ohno, et al. (2009) describe kaizen as "continuous improvement" involving the entire workforce from the top management to middle managers and workers." The authors state three reasons why kaizen is appropriate for Africa:

1. Complementarity with the Western top-down approach of Business Process Reengineering, which imposes radical changes from the top down. Kaizen is, rather, a bottom-up approach that relies on the decisions and improvements from the entire workforce.
2. Kaizen is a low-cost approach to improving performance that doesn't rely on capital investment, and that quickly builds sustainable capability within the organisation.
3. Kaizen is transferable to the socio-economic environment of developing countries. The economic and cultural inhibitors to excellence in Africa are similar to those that existed in Japan and were overcome through concerted effort and good public policies.

The Kaizen Institute, a global consulting company founded in 1985 by Sensei Masaaki Imai (who wrote the foundational book *Gemba Kaizen*, 2012), has established a branch in Africa (<http://afr.kaizen.com/home.html>).

From the above, we conclude that pursuing process excellence in East Africa through Lean and Six Sigma is both vital and possible.

² Comprehensive Community Based Rehabilitation in Tanzania, based in Dar es Salaam, is the largest provider of disability and rehabilitation services in Tanzania (<http://www.ccbt.or.tz/>).

World Vision's process improvement approach in East Africa

World Vision's approach in East Africa reflects the standard approach to implementing a new process improvement initiative:

- *Instil a vision for excellence.* We provide an inspiring vision for Process Excellence that integrates the key elements of Lean and Six Sigma with the values and priorities of a humanitarian INGO.
- *Engage senior leaders.* World Vision East Africa Region senior leaders asked the author, a certified Lean Six Sigma Master Black Belt, to lead process improvement in the region. We trained and got buy-in from senior leaders of all the national offices in the region.
- *Train and mentor Green Belts.* We trained Green Belts with a one week standard classroom Lean Six Sigma curriculum tailored to the World Vision context. The training includes about 15 hours of hands-on exercises to promote experiential learning. Green Belts receive coaching and mentoring as they facilitate process improvement projects.
- *Conduct process improvement projects that deliver measured impact.* Green Belts facilitate process improvement projects to improve priority processes with teams composed of process participants. These projects follow a standard process similar to Six Sigma's DMAIC and use standard templates to document the project proposal, charter, changes, action items, and summary (including before and after measurements).
- *Energise teams for Process Excellence.* We developed and deliver a five hour training to introduce employees to and get them excited about process improvement and Process Excellence. Process improvement workshops start with this training. It includes a hands-on simulation to reinforce the concepts and tools taught, show the potential impact of process improvement, and experientially demonstrate that improved performance comes not from better employees, but from better processes. Senior leadership teams also take this training.
- *Change habits in the workplace.* We developed and piloted a two-day workshop that transforms how people think about and do their work through workplace organisation (6S), visual control, process standardisation, and measurement. The workshop integrates concepts and tools from *Gemba Kaizen* (Imai, 2012) and *The High Velocity Edge* (Spear, 2009).
- *Share success stories and learning.* We held a Process Excellence Summit in May 2013 to celebrate and share our successes and learning. We are also sharing our impact within the larger World Vision Partnership.

Table 2 shows the magnitude of our activities in East Africa to date (May 2013).

| Process improvement activity | Number |
|--|--------|
| Train employees with the Process Excellence Energiser | 370 |
| Train/certify World Vision Lean Six Sigma Green Belts ³ | 47/18 |
| Start process improvement projects | 49 |
| Implement process improvement projects | 26 |
| Complete process improvement projects (with measured impact) | 23 |

Table 2. Process improvement activities

³ Globally, we have trained over 100 Green Belts and conducted additional projects.

World Vision Process Excellence

While corporations and INGOs share some common values and core principles, the relative priority of the values will differ. For example, when profit is the final measure, customer engagements must necessarily be as brief and efficient as possible. On the other hand, when transformed lives are the final measure, "customer" engagements with community members must necessarily be as participatory and empowering as possible.

World Vision's Core Values

We are Christian
We are committed to the poor
We value people
We are stewards
We are partners
We are responsive

The same logic applies to what process excellence looks like. Both for-profits and INGOs value effectiveness and efficiency, but INGOs also prioritise other values that accord with how they engage with the people they serve. Because World Vision's development approach places a priority on treating people with respect and on being participatory, and our Partnership Principles include empowerment and accountability, these values are core to our idea of excellence.

We integrated the corporate world priorities of being effective and efficient with World Vision's priorities of being appropriate and empowering, and over these we highlighted the common need to continuously improve. We define World Vision Process Excellence as Effective, Efficient, Appropriate, Empowering, and Continuously Improving⁴. Figure 2 shows these five major elements, each comprising three sub-elements.



Figure 2. World Vision Process Excellence

⁴ Interestingly, Takudzwa Kufa (2012) independently came up with the same five elements of process excellence for NGOs.

Figure 3 shows how we define each sub-element to present in simple language the best thinking and practice in Lean and Six Sigma together with World Vision's values and priorities.

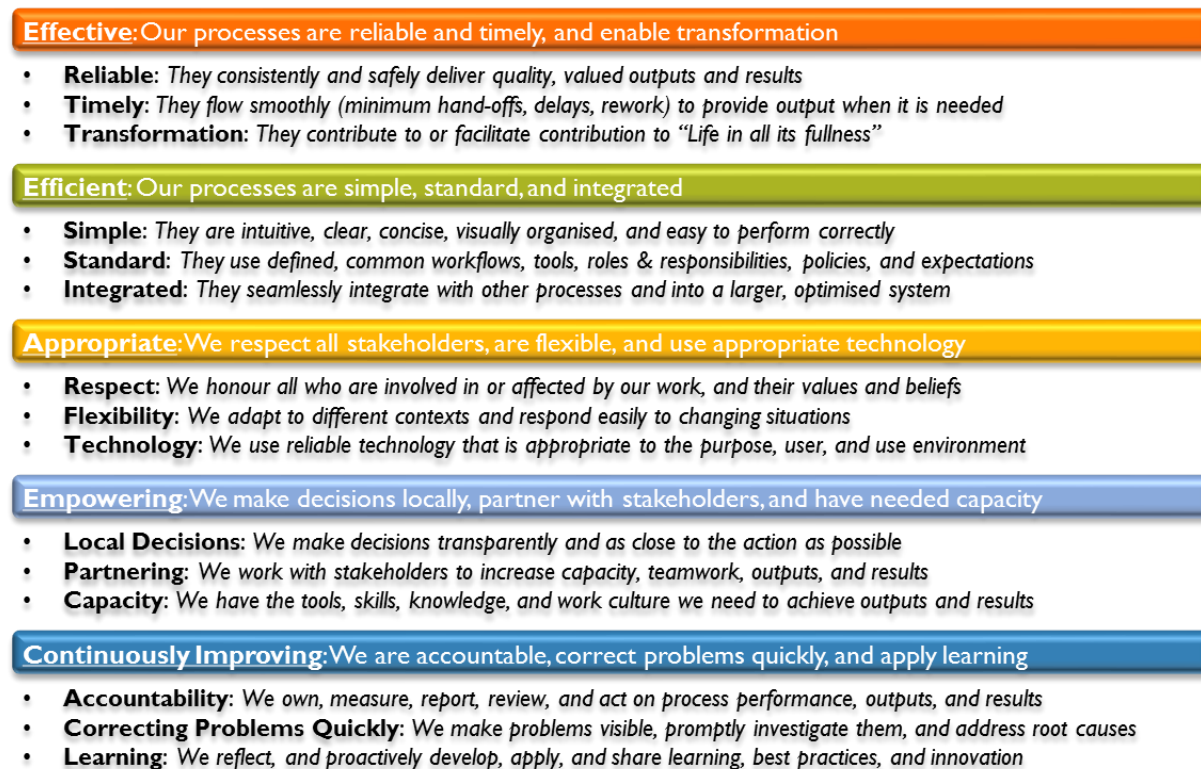


Figure 3. World Vision Process Excellence Detail

World Vision Process Excellence aligns our staff and leaders to pursue a common goal as they define and improve the internal and external processes we use to contribute to "life in all its fullness" for the most vulnerable children across the globe.

World Vision's experience and learning

Process improvement teams have mapped and analysed some of our key processes. They've made typical changes to improve process performance, such as:

- better planning and up-front coordination
- elimination of redundant reviews and approvals
- creation and use of checklists and simplified templates
- doing tasks in parallel that were done sequentially.

Process improvements in World Vision's East Africa Region have reduced span times, increased quality, and reduced costs. We have identified actual annual cost reductions of nearly \$1,000,000, and this figure reflects only part of the total financial impact. These improvements have allowed us to work with communities to reduce poverty in a timelier and more cost effective manner.

Table 3 shows some of the significant changes we have achieved in East Africa.

| Country | Process | Measure | Before | After | Change |
|-------------|-----------------------------------|--|-----------|-----------|--------|
| Burundi | Procurement planning and sourcing | Annual cost of goods (mosquito nets, office supplies, vehicles...) | \$458,713 | \$318,823 | -30% |
| Ethiopia | Recruitment | Time to hire new staff | 130 days | 41 days | -68% |
| Kenya | Procurement | Time to procure and drill boreholes | 174 days | 64 days | -63% |
| Rwanda | Procurement | Internal time to procure goods | 27 days | 14 days | -48% |
| South Sudan | Payroll | Time to prepare payroll | 30 days | 8 days | -73% |
| South Sudan | Travel and lodging | Expenses per month (January-April) | \$88,683 | \$63,680 | -28% |
| Uganda | Payment | Percent of documents with errors | 40% | 4% | -90% |

Table 3. East Africa process improvements

Lessons learned

In achieving these improvements, we have observed the following:

- Receiving Green Belt training and participating in a process improvement workshop equips and energises employees to improve processes. In addition to the more formal process improvement projects, trained employees also make many small improvements in their work and personal lives.⁵
- The training and workshops transform employees' thinking from accepting poor processes to seeing (and no longer accepting) waste and variation, solving problems, and improving processes.
- The overwhelming response has been, "This is great! We need more of it!" However, the current culture, habits, and paradigms are so ingrained and pervasive that we still require additional training, practice, coaching and mentoring to develop our understanding and imagination of what Process Excellence looks like and how we can achieve it.
- The day-to-day pressure of getting work done presents the greatest hindrance to project completion. We need to find a better way to ensure implementation proceeds according to plan.
- The task of properly documenting process improvement project and measuring actual impact presents the second greatest obstacle to project completion. We introduced a one slide PowerPoint template – basically an A3 (Lean Enterprise Institute (LEI), 2012) – titled "We Made it Better" to simply document smaller improvements.
- Projects progress faster in national offices with stronger buy-in and drive from senior leadership.
- Senior leaders appreciate the energy and changes being made, and require proof of change from actual before and after measurements, rather than just estimates.
- Improving the processes of greatest importance to senior leaders (such as recruitment and supply chain) has increased buy-in and attention. Leaders who are more committed fervently request to have Green Belts trained and projects undertaken – and they provide the leadership support to move projects to completion.
- The hands-on simulation that's part of the Process Excellence Energiser provides tangible proof that processes can be improved, and prepares workshop participants to identify waste and variation, and agree on improvements to make.
- We can greatly multiply the impact of process improvement by expanding the depth and breadth of process improvement within the region and globally.

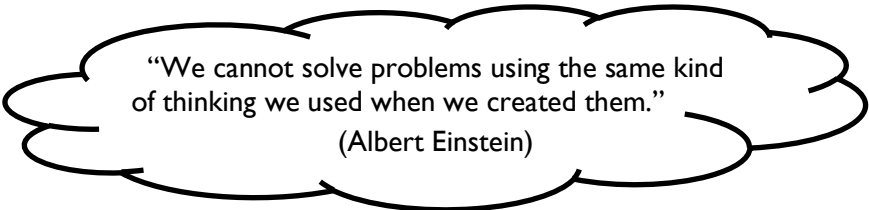
⁵ In Tanzania, Michael, a workshop attendee, applied the Lean and Six Sigma concepts to his family's micro-enterprise business of producing sunflower oil and doubled their productivity by addressing root causes of quality problems.

Recommendations for NGOs and East African organisations

World Vision's experience clearly demonstrates that applying Lean and Six Sigma to improve processes bears real fruit and shows promise for bringing about the transformation needed in INGOs and East Africa. We recommend the following for NGOs and other East African organisations:

- Implement Lean and Six Sigma to improve processes in pursuit of process excellence.
- Educate, engage, and get buy-in and sustained attention from senior leadership.
- Improve processes and achieve results that senior leaders care about most.
- Provide the coaching and mentoring that Green Belts need to apply and grow their learning.
- Prioritise timely project completion and measurement of actual impact.
- Contextualise Lean and Six Sigma to reflect your organisation's values and priorities.
- Use Lean and Six Sigma to energise your employees and turn them into proactive problem solvers who no longer accept poor quality and delays, but who continuously innovate to improve performance and impact while reducing costs.

As reflected in the quote from Einstein, we need new thinking and new ideas to transform our organisations. Lean and Six Sigma provide the concepts and tools to transform not only our thinking, but our processes as well.



"We cannot solve problems using the same kind of thinking we used when we created them."
(Albert Einstein)

How you can help

As we look to the future, we see many challenges, but more importantly we see the huge need and opportunity for process improvement. NGOs and public, private, and civil society sector organisations in East Africa need assistance and guidance to bring about meaningful transformation. Lean Six Sigma Black Belts and Master Black Belts, and other TQM experts, can visit Lean4NGO (<http://lean4ngo.org/>) and join the discussions on Lean4NGO's LinkedIn group (<http://www.linkedin.com/groups?home=&gid=3880443>). They can also share their expertise with NGOs, for example, by:

- teaching, coaching and mentoring Green Belts and Black Belts in East African organisations (for example, through Mentors for Africa (<http://www.mentorsforafrica.org/>)),
- contextualising Lean and Six Sigma concepts and tools to make them easily understandable and useful to humanitarian field workers as they engage children and adults in poor communities across the globe and to micro-enterprises in developing countries,
- facilitating process improvement projects on key process that demonstrate impact.

Conclusion – we can and should improve processes for good

We conclude that NGOs and all East African organisations can and should apply Lean and Six Sigma approaches to achieve significant process improvements that reduce cost, shorten time spans, and improve quality. Private sector companies can improve their processes to provide valuable goods and services to customers and increase their profits. Governments, NGOs, and other non-profit organisations can improve their processes for good – that is, to achieve their mission of serving people.

Let us work together strategically, passionately and with the best TQM approaches, such as Lean and Six Sigma, to pursue and achieve process excellence in NGOs and East Africa.

References

- Bradley, B., Jansen, P. & Silverman, L., 2003. The Nonprofit Sector's \$100 Billion Opportunity. *Harvard Business Review*, Issue May.
- Diaz-Otero, T., 2011. *Effectiveness of Aid: How to improve it with diminishing resources?*. [Online] Available at: <http://sonjabe.com/effectiveness-of-aid-how-to-improve-it-with-diminishing-resources/> [Accessed 28 November 2012].
- Gates, B., 2013. *Annual Letter from Bill Gates*, Seattle: Bill & Melinda Gates Foundation.
- George, M. L., 2003. *Lean Six Sigma for service: how to use Lean Speed and Six Sigma Quality to improve services and transactions*. New York: McGraw-Hill.
- GRIPS Development Forum (GDF), 2012. *GRIPS Development Forum Policy Minutes*. [Online] Available at: http://gwww.grips.ac.jp/forum-e/pdf_e12/merged_PM24.pdf [Accessed 28 November 2012].
- Imai, M., 2012. *Gemba Kaizen*. 2nd ed. New York: McGraw-Hill.
- Kufa, T., 2012. *Aid Effectiveness: Lessons from the Food Industry*. [Online] Available at: <http://improveafrica.wordpress.com/2012/06/22/aid-effectiveness-lessons-from-the-food-industry/> [Accessed 28 November 2012].
- Lean Enterprise Institute (LEI), 2012. *LEI A3 Dojo*. [Online] Available at: www.lean.org/a3dojo/ [Accessed 28 November 2012].
- Mandela, N., 2003. s.l.:s.n.
- McArthur, J., March/April 2013. *Own the Goals: What the Millennium Development Goals Have Accomplished*, Washington, DC: s.n.
- Myers, B. L., 2011. *Walking With The Poor: Principles and Practices of Transformational Development*. Revised ed. Maryknoll, NY: Orbis Books.
- Ohno, I., Ohno, K. & Uesu, S., 2009. *Introducing KAIZEN in Africa (Introduction)*. [Online] Available at: http://www.grips.ac.jp/forum/pdf09/Introducing_KAIZEN_in_Africa.pdf [Accessed 28 November 2012].
- Pande, P., Neuman, R. & Cavanagh, R., 2000. *The Six Sigma way: how GE, Motorola, and other top companies are honing their performance*. New York: McGraw Hill.
- Pope, D., Parris, A. & Hill, K., 2004. The Lean Church. *Regent Business Review*, March/April(10), pp. 11-16.
- Process Excellence Network (PEX), 2011. *Lean Six Sigma Boosts Peace Keeping Operations*. [Online] Available at: www.processexcellencenetwork.com/lean/articles/lean-six-sigma-for-peace-keeping-operations/ [Accessed 28 November 2012].
- Spear, S. & Bowen, K., 1999. Decoding the DNA of the Toyota Production System. *Harvard Business Review*, September-October(1999).
- Spear, S. J., 2004. Learning to Lead at Toyota. *Harvard Business Review*, Issue 2004.
- Spear, S. J., 2009. *The High-Velocity Edge*. 2nd ed. New York: McGraw-Hill.
- United Nations (UN), 2011. *Africa, Map No. 4045 Rev. 7*. [Online] Available at: <http://www.un.org/Depts/Cartographic/map/profile/africa.pdf> [Accessed 28 November 2012].
- United Nations Development Programme (UNDP), 2012. *UNDP international human development indicators*. [Online] Available at: <http://hdr.undp.org/en/data/profiles/> [Accessed 28 November 2012].
- Womack, J. P. & Jones, D. T., 1996. *Lean Thinking*. New York: Simon & Schuster.
- Womack, J. P., Jones, D. T. & Roos, D., 1991. *The Machine That Changed The World*. 1st ed. New York: HarperPerennial.

About the author

Andrew Parris lives with his wife and two sons in Nairobi, Kenya, where he leads Process Improvement for the World Vision East Africa Region. He started working for World Vision International (www.wvi.org) as part of its Global Information & Communication Technology organisation in 2008. Prior to that he worked in Denver, Colorado for Lockheed Martin Space Systems Company, on the Titan, Atlas, and Delta (through the ULA joint venture with Boeing) rocket programmes. His primary focus was co-leading process improvement.

Before joining World Vision International, Andrew served as street outreach volunteer and volunteer Colorado Executive Director of StandUp For Kids (www.standupforkids.org); he helped WINN Ministries (www.winnministries.org) organise their warehouse and streamline its operations; he also developed and taught a 20 hour "Creative Lean And Six Sigma" (CLASS) process improvement course to select employees at VisionQuest Alliance (www.vqalliance.org), a non-profit providing business and advancement services to Christian ministries.

Andrew Parris is a certified Six Sigma Black Belt and a certified Integrated Enterprise Excellence Lean Six Sigma Master Black Belt. He earned a Ph.D. in Mechanical at MIT as part of the Lean Aircraft Initiative (now Lean Advancement Initiative, <http://lean.mit.edu>). He also holds an S.M. in Technology & Policy from MIT and a B.S. in Manufacturing Engineering from UC Berkeley.

Andrew Parris can be contacted at Andrew_Parris@wvi.org

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