



greenJobs

PROGRAMME



United Nations
Z A M B I A

annual
impact
report

ZAMBIA
2015



International
Labour
Organization



UNITED NATIONS
UNCTAD

This is how we did it



UNEP



International
Trade
Centre



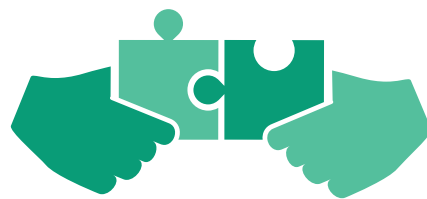
Fostered Private Sector participation

- Crafted Zambia's business case for green affordable housing on the basis of market research and industry value chain analysis
- Shared the financial risk partnering with industry large companies and multinational enterprises to test the market for green affordable housing as core business
- Built 12 demonstration units in 4 provinces: Lusaka, Central, Copperbelt and North Western Province with 74 more houses built new or retrofitted utilizing green building materials, services, products and technologies



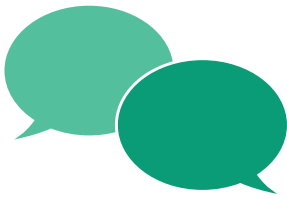
Enabled the environment for doing green business

- Supported government and social partners in reviewing of housing policy, regulations and guidelines
- Zambia Environment Management Agency (ZEMA) development of the Environmental Impact Assessment guidelines
- Worked with Ministry of Finance and National Planning on Green jobs assessments and employment projection across Zambia's economic growth sectors



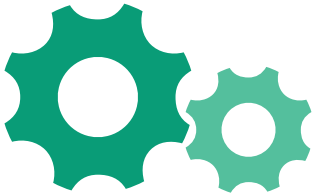
Deepened business linkages and stimulated markets for green growth

- Public and private housing investors and developers are catching on to green building
- Large and Multinational Companies are investing in green affordable housing for their workers, and as a business to low and middle income earners (Lafarge 800 units, Barrick Lumwana 500 units, Kalumbila Town Development Cooperation 5000 units, People's Process on Housing and Poverty in Zambia 300 units, and many others)



Spread the message to educate and change mindsets

- More than 2,500,000 people reached with social and mass media platforms
- Continuous engagement and partnerships with media to tell the story in many ways



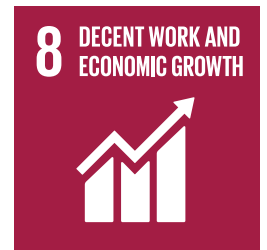
Built industry knowledge and skills capacity on green economic growth and decent jobs

- Worked with universities, regulatory and professional institutions to unearth and build local talent for sustainable architecture through competitions and training
- More than 1,500 small enterprises trained in entrepreneurship, small business management and better working conditions for increased productivity
- New opportunities in renewable energy and waste management are emerging

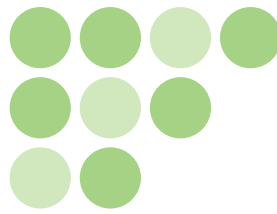


Created more and better jobs and pioneered the implementation of SDGs

- MSMEs created more than 2,660 decent and green jobs with Programme support in 2 years
- Small businesses are developing, growing and creating more and better jobs
- Working conditions are improving and productivity is rising with 2,018 jobs of better quality
- Greater outreach and scale if the PSD Programme can be replicated in other sectors



Executive Summary



Programme Purpose, Logic and Structure:

The Zambia Green Jobs Programme (ZGJP) is a sustainable development programme which facilitates private sector development for inclusive green growth, more and better jobs particularly for young people and women. The programme is implemented by the Government of Zambia and national partners with technical assistance from the United Nations (ILO, UNEP, UNCTAD, FAO and ITC) and funding from the Government of Finland.

The programme development objective is to enhance competitiveness and sustainable business among micro, small and medium-sized enterprises (MSMEs) in Zambia's building construction sector. Its immediate objective is to create at least 5,000 decent green jobs particularly for young people, improve the quality of at least 2,000 jobs in MSMEs which in turn will improve the incomes and livelihoods of at least 8,000 households that depend on the building construction sector. This objective is pursued through three main outcomes:

- Outcome 1: Increased appreciation in the Zambian public at large and building industry stakeholders in particular, of green building principles;
- Outcome 2: A refined industry-specific regulatory framework that stimulates demand among private and public housing developers for environmentally friendly building materials, products and methods;
- Outcome 3: MSMEs have enhanced capacity to effectively participate in the building construction and green building products and services markets.

Target groups for the programme are: Small-scale

active contractors registered with the National Construction Council (NCC) and listed in either grade 5 or 6; Small-scale producers of sustainable building materials and technologies; and building professional service providers.

Present Situation of the Project: The programme is being implemented in a context of high rural poverty (60.5%), depressed copper prices leading to rapid currency depreciation, increases in inflation pressures and interests rates which have constrained access to credit, downgrading of credit rating which lowered foreign direct investments and business confidence. Consequently, the Ministry of Finance has projected that Zambia will achieve a real GDP growth rate of 4.6 per cent and not the earlier projected 7.0 percent in 2015. The country also faces several development challenges chief among them, to accelerate the inclusivity and diversification of the economy, and continue the drive to create decent jobs, especially for young people and women, as well as create wealth to ensure greater provision of social safety nets for poverty reduction.

The most recent Labour Force Survey (LFS 2014) puts Zambia's labour force at 5,966,199, with slightly more than half (51.6%) female. The majority of the labour force (84.6%) is engaged in the informal sector (agriculture and micro, small and medium enterprises (MSMEs)). The formal sector employs only 15% of the active labour force.

Infrastructure development and in particular the building construction industry in Zambia offers excellent potential for broad-based wealth and job creation due to its high labour intensity, low entry barriers for semi-skilled and unskilled labour, and high concentration of MSMEs. However, the sector is among the most prone sectors to industrial accidents and injuries, and workers are amongst the

most vulnerable to ill health, and poverty in case of maternity, disease, unemployment, disability, or old age, for lack of any form of social protection.

The Ministry of Local Government and Housing estimates the housing backlog or demand is likely to rise above 3 million units by 2030. In 2016 the Government of Zambia has allocated 174,96 million (0.4%) to Environmental Protection and 798,71 million (1.7%) to Housing and Community Amenities. The prevailing demand for housing coupled with Government support in terms of policy and public expenditure is likely to drive private sector development and growth in infrastructure development.

Results at a Glance: The ZGJP is on course on most of its key performance indicators. At the time of the evaluation the programme had supported the creation of 2,660 new green and decent jobs in micro, small and medium enterprises mainly in the North Western, Copperbelt and Southern Provinces. This figure excludes 3,600 cases of casual employment recorded in the form of temporary and part-time jobs. The programme is well on course to meet its overall target of 5,000 new green and decent jobs by 30 April 2018.

This conclusion is also supported by strong private sector partnerships that have been initiated by the programme. These include Lafarge, Barrick Gold Lumwana, First Quantum Kalumbila, Saint Gobain as well as Peoples' Process on Housing and Poverty in Zambia, a non-governmental organisation (NGO) that supports the Zambia Homeless and Poor People's Federation (ZHPPF), a diversified association of over 140,000 members mostly women, all of which hold the promise of more than 12,000 homes built with green building practice, process, materials, products and services with a potential to link many MSMEs across the building construction value chain.

The programme also supported the quality improvement of 2,018 green and decent jobs existing in micro, small and medium enterprises. This came through effective partnerships with the Ministry of Labour and Social Security (MoLSS), workers

unions, federation of employers and small business associations on labour law and occupational safety and health. It was boosted with social security outreach activities, particularly with the National Pension and Social Security Authority (NAPSA) and the Workers Compensation Fund and Control Board (WCFCB). The Zambia Green Jobs Programme is also likely to achieve its target on improving the quality of jobs by 30 April 2018.

In the last 2 years the Zambia Green Jobs Programme has benefitted more than 6,667 enterprises, workers and their representatives. Resulting from this it was established that 2,554 households reported increased income, although income attribution could not be clearly established with the result measurement method used by the current monitoring and evaluation system.

Despite this success, the deterioration of the economic environment has increased the risks and cost of doing business, affecting private sector development and investments in general. This may have prevented the programme to achieve even better results.

Despite this, the potential for the housing market remains huge with demand at 3 million households.

Abbreviations

AFDB	African Development Bank	MLGH	Ministry of Local Government and Housing	UNEP	United Nations Environment Programme
ABCEC	Association of Building & Civil Engineering Contractors	MLSS	Ministry of Labour and Social Security	UNCTAD	United Nations Conference on Trade and Development
CBU	Copperbelt University	MOFNP	Ministry of Finance and National Planning	UNDP	United Nations Development Programme
COSTIGA	Copperbelt Sawmillers and Timber Growers Association	MSME	Micro, Small and Medium Enterprise	UNZA	University of Zambia
DCED	Donor Committee for Enterprise Development	MLNREP	Ministry of Lands, Natural Resources and Environmental Protection	WCFCB	Worker's Compensation Fund Control Board
EIA	Environmental Impact Assessment	MWS	Ministry of Works and Supply	ZABS	Zambia Bureau of Standards
FAO	Food and Agriculture Organization of the United Nations	NHA	National Housing Authority	ZAWIC	Zambia Association of Women in Construction
FMC	Financial Management Counsellors	NCC	National Council for Construction	ZCTU	Zambia Congress of Trade Unions
FQM	First Quantum Minerals	NAMSSC	National Association of Medium and Small Scale Contractors	ZDA	Zambia Development Agency
GDP	Gross Domestic Product	NAPSA	National Pension Scheme Authority	ZEMA	Zambia Environmental Management Agency
GRZ	Government of the Republic of Zambia	NUBEGW	National Union of Building, Engineering and General Workers	ZFE	Zambia Federation of Employers
ITC	International Trade Centre	PPHPZ	People's Process on Housing and Poverty in Zambia	ZIA	Zambia Institute of Architects
ILO	International Labour Organization	SME	Small and Medium Enterprises	ZIPAR	Zambia Institute for Policy Analysis and Research
M&E	Monitoring and Evaluation	SNDP	Sixth National Development Plan	ZGJP	Zambia Green Jobs Programme
MA&D	Market Analysis and Development	SIYGCB	Start and Improve Your Green Construction Business	ZNAS	Zambia National Association for Saw Millers
MCTI	Ministry of Commerce, Trade and Industry	UN	United Nations		

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Zambian Current Economic and Political Outlook

General outlook

Global economic slowdown mainly driven by falling copper prices

Following several years of robust economic growth, the Zambian economy faced a number of challenges in 2015 and GDP growth projection for 2015 dropped to 4.6% from 7.0% which had previously been announced by the Government (2016 Budget Address by Minister of Finance).

Due to external factors such as a slower regional and global growth, copper prices are estimated to have fallen from an average of US \$6,829 per metric tonne in 2014 to US \$5,160 per metric tonne in 2015 (2016 Budget Address by Minister of Finance). This had a severe effect on the Zambian economy as copper exports make up 70 per cent of total export earnings according to the Central Statistical Office (CSO).

The drop, mainly due to a decreasing demand from China, triggered a 51 per cent fall in the currency against the dollar (Bank of Zambia).

Currency devaluation, rising inflation and increased cost of servicing debts

The currency decline has caused an increased inflation and rising consumer prices in Zambia. The inflation rate rose to from 7.9 per cent in January to 21.1 per cent in December (CSO). The Bank of Zambia raised its benchmark interest rate by a record 3 percentage points to 15.5 per cent in November to combat inflation.

The depreciation of the Kwacha has been detrimental to the cost of servicing debt and debt sustainability. Total debt was projected to reach 56 per cent of gross domestic product (GDP) by the end of 2015 (World Bank).

Repeated fiscal deficits have reduced investor confidence. Standard & Poor's downgraded Zambia's credit rating in July to B, saying it expected the 2015 fiscal deficit to widen to about 10 per cent of GDP compared to its previous estimate of 6 per cent. In



Figure 1: Change in Zambian Kwacha's strength vs. US Dollar 2015, Bank of Zambia



The energy shortage has led to an increased consumption of charcoal, a main driver of deforestation in Zambia.

September, Moody's Investors Services downgraded Zambia's government issuer rating to B2 from B1.

Energy shortage increase cost of doing business

The exogenous shocks Zambia encountered were combined with an emerging energy shortage due to poor rainfall patterns. As hydropower is Zambia's main energy source for electricity generation, the poor rainfall has led to an energy shortage with hydropower dams running below capacity. To manage the power deficit, state-owned power company ZESCO has increased the extent of rolling power outages (load-shedding) to at least 8 hours per day for the majority of its household, commercial and industrial consumers. In addition to electricity shortage, the country has experienced repeated fuel and gas shortages due to low supply and strikes by truck drivers of fuel distributors.

Inflation, decreased confidence in the economy, constrained access to credit, long periods of no electricity combined with fuel and gas shortages have impacted the business climate negatively as business operations are becoming more and more expensive and difficult to run.

Political uncertainty arising from upcoming presidential and general (tripartite) elections

Further affecting the business climate are the upcoming elections which will take place on August 11, 2016. Incumbent President Edgar Lungu was elected president in 2015 following the death of President Michael Sata in October 2014. President Lungu will most likely be nominated by the ruling party Patriotic Front (PF) to contest the elections, and is expected to run against main opposition party United Party for National Development (UPND) candidate Hichilema Hakainde, runner up in the elections in 2015. This year's elections will be held under a new constitution which has included the 50+1 clause as well as a clause on running mate. These two clauses will have an impact on the type of elections that the country will have and also increase the level of competition. The elections are expected to be a close competition.

The elections will most likely cause a slow-down in business and policy decision-making until it is clear who will take office. Following the trend of by-elections in January, 2015 and the reports of sporadic political violence, the elections are also projected to cause instability and violence in certain parts of the country, including provinces where the ZGJP is active which may hamper programme activities.

Current labour market trends

Labour force survey depicts decreasing unemployment rates

Current trends published in the 2014 Zambia Labour Force Survey Report reveal that the unemployment rate in Zambia is steadily decreasing from 16 % in 2008 to 7.8 % in 2012 and 7.4 % in 2014. However, rural unemployment rates have risen from 3.3 % in 2012 to 4.2% in 2014, whereas urban unemployment has decreased from 14.2% to 11.5% during the same period. In 2014 unemployment rates were higher amongst males (8.4%) than females (6.5%). The number of the unemployed population stands at 469,851.

However, most recent job losses in the mining sector may have changed this picture

The copper price decrease has led to significant job losses. Konkola Copper Mines (Vedanta Resources Plc) put Nchanga underground mine in Chingola under care and maintenance in November 2015, resulting in 1,675 workers losing their jobs. Mopani

Copper Mines (Glencore Plc) retrenched 3,051 workers in November 2015, with 1,249 employees opting for voluntary separation. Luanshya Copper Mines (China Nonferrous Mining Corporation Ltd) put Baluba Mine and its attendant departments on care and maintenance in September 2015, sending 1,640 employees on forced leave with monthly allowances (Zambia National Broadcasting Corporation).

Still some economic sectors hold the promise to create more and better jobs

Following agriculture (48.9%), domestic work (17.4%), wholesale and retail trade (11.8), manufacturing (3.8%), the construction sector (3.1%) is the 6th biggest employer in Zambia. The majority (67%) of the workers in the construction sector are informally employed and as consequence informality, low levels of productivity and low levels of skills remain a challenge in developing the economy. (2014 Zambia Labour Force Survey Report).



Zambian women in Kalulushi empowered through solar-panel assembly and installation training.

Zambia national development goals on sustainable development and decent jobs

Vision 2030

Zambia aspires to become a prosperous middle-income country by 2030 wherein there are opportunities for improving the well-being of all, embodying values of socio-economic justice, underpinned by the principles of: (i) gender responsive sustainable development; (ii) democracy; (iii) respect for human rights; (iv) good traditional and family values; (v) positive attitude towards work; (vi) peaceful coexistence and; (vii) private-public partnerships

Revised Sixth National Development Plan (SNDP) 2011 - 2015

The SNDP is a comprehensive medium-term strategy for the Vision 2030 all-inclusive development agenda and is aimed at achieving sustained economic growth and poverty reduction through accelerated infrastructure development, economic growth and diversification; promoting rural investment and accelerated poverty reduction and enhanced human development.

Zambia Industrialization and Job Creation Strategy, March 2012

'To create 1,000,000 new formal sector jobs over the next five years, four growth sectors have been identified as having the greatest potential to achieve the objectives of promoting growth, employment, value addition and expanding Zambia's economic base. These are the Agriculture, Tourism, Construction and Manufacturing sectors.' [40% youth, 30% Women and 30% disadvantaged groups].

Zambia's cooperating partners on inclusive green growth and decent jobs

Finnish development assistance

Zambia is receiving overseas development assistance from the Government of Finland under a bilateral Country Assistance Plan currently under review. Private Sector Development for inclusive and green economic growth and decent jobs falls under the global Finland Development Policy Priority II: "Developing countries' own economies have generated more jobs, livelihood opportunities and well-being"

Zambia UN Sustainable Development Partnership Framework (UNSDPF)

The Zambia Green jobs Programme is a UN Joint Programme delivering the UN response to Zambia's national development plans and priorities. Under the Zambia UN Sustainable Development Partnership Framework (UNSDPF) Key Result Area II on Environmentally sustainable and inclusive economic development, the Zambia Green Jobs Programme contributes to *Outcome 4: By 2021, productive sectors expand income earning opportunities that are decent and sustainable, especially for youths and women in the poorest areas; as well as Outcome 5: By 2021, Women, youth and other vulnerable groups are empowered to participate in economic opportunities that are decent and promote sustainable livelihoods agriculture, manufacturing energy, construction, tourism and mining.*

UN delivering as one on social justice and decent work

The Zambia Green Jobs Programme is an inclusive green growth and private sector development initiative implemented by the Government of Zambia and its Social Partners (workers' and employers' organizations) with financing from the Government of Finland and technical assistance from the United Nations (UN) in the fit-for-purpose spirit of the UN Delivering as One. The programme

is implemented by UNEP, UNCTAD, ITC and FAO who are led by the ILO whose primary goal today is devoted to promoting social justice and internationally recognized human and labour rights and international standards, pursuing its founding mission that social justice is essential to universal and lasting peace. The ILO's tripartite structure of Government, Employers and Workers Organizations, who comprise the Programme Steering Committee as well as the Government of Finland, provides a unique platform for promoting decent work for all women and men.

Globally the Zambia Green Jobs Programme falls under the ILO Programme and Budget 2016 – 2017 Outcome 4 on Promoting Sustainable Enterprises whose results are measured against the number of ILO member states who promote an environment conducive to the growth of sustainable enterprises that is aligned with sustainable development objectives and the creation of productive employment and decent work. At national level, the programme is part of the Zambia Decent Work Country Programme portfolio of ILO Country Office Lusaka tripartite constituent services to Zambia.

Zambia Green Jobs Programme At A Glance

Development Objective

To promote sustainable enterprises and job creation in key economic sectors.

Immediate Objectives or Outcomes

1. To deepen mindsets, attitudes and behaviour towards sustainable development
2. To strengthen policies and incentives for inclusive green growth and employment creation
3. To build strong institutions and promote competitive and sustainable MSMEs to grow and create jobs

Budget

Zambia : US\$200,000

UN Zambia : US\$1,050,000

Finland : US\$10,587,752 (estimate)

Total : US\$11,837,752

Duration and Time Frame

Duration : 56 months

Start Date : 1st September 2013

End Date : 30th April 2018

FIVE UN AGENCIES:



International Labour Organization



Food and Agriculture Organization



United Nations Environment Programme



UNITED NATIONS UNCTAD



International Trade Centre

DELIVERING AS ONE TO:

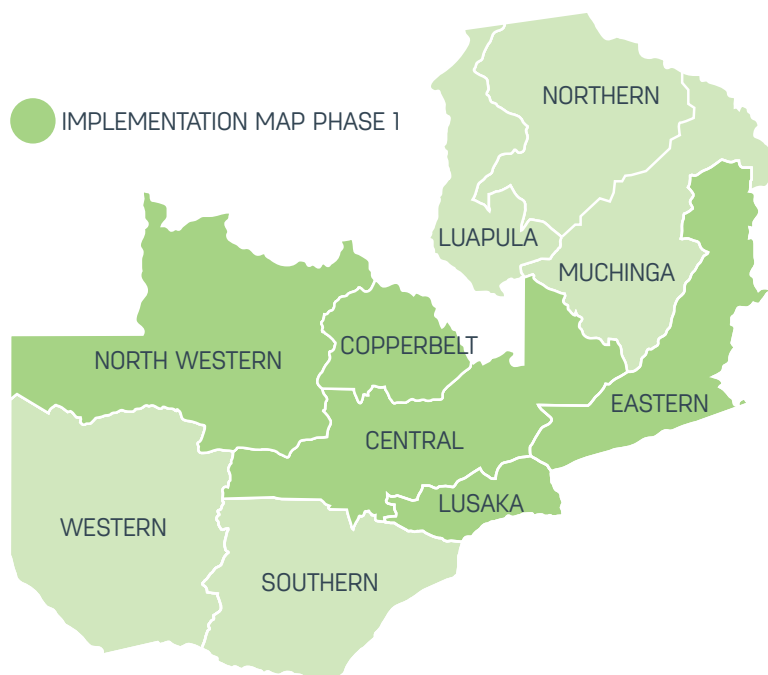


REPUBLIC OF ZAMBIA

WITH FINANCIAL SUPPORT FROM:



MINISTRY FOR FOREIGN AFFAIRS OF FINLAND



Programme interventions

The programme promotes the development of the green economy in Zambia by supporting competitive and sustainable development of micro, small and medium enterprises (MSMEs) in order for them to grow and create decent green jobs, initially in the building construction sector and potentially in other sectors.

Green and decent jobs

A green economy promotes the sustaining and advancing of economic, environmental and social well-being. Green jobs are those that contribute either to the preservation or improvement of the environment. In order to be decent green jobs, fundamental principles and rights at work, social dialogue and social protection have to be embedded in each green job created or improved.



Figure 2: Programme interventions

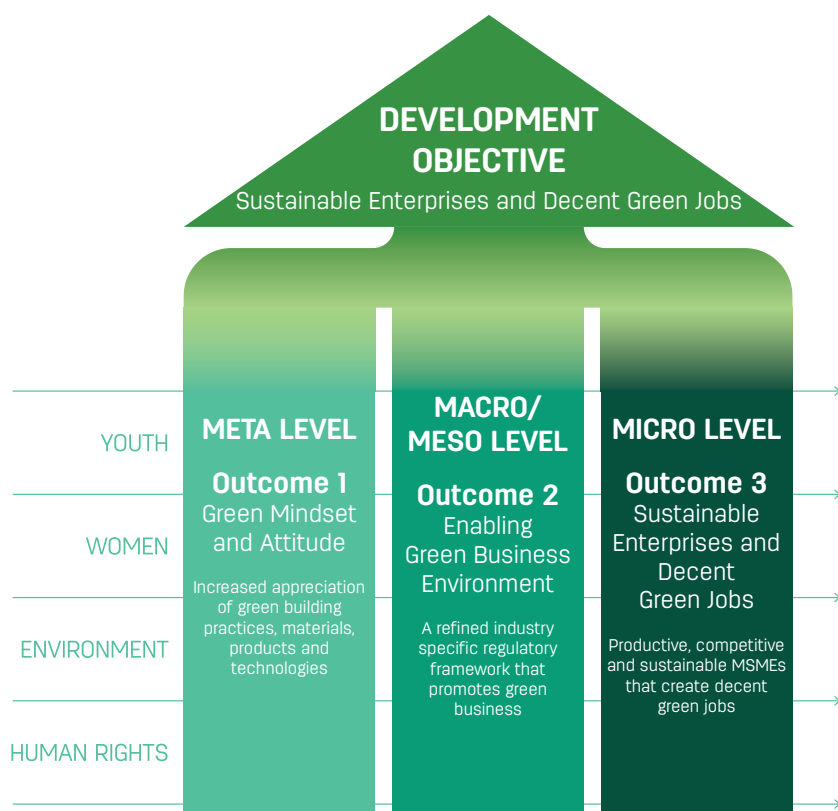


Figure 3: Programme strategy

Programme strategy: A systemic approach to sustainable development

More broadly, the programme aims to:

- Increase the appreciation among the Zambian public in general, and among the construction industry stakeholders in particular, of green technologies.
- Refine the regulation that stimulates demand among private and public housing developers for environmentally friendly building materials, products and methods.
- Enhance the capacity of MSMEs to effectively participate in the construction of eco-friendly buildings by using and delivering green products and services.

2015 Results Achieved

By 2018, the programme will create at least 5,000 decent green jobs – particularly for young people –, enhance the quality of at least 2,000 green jobs in

MSMEs, and improve the incomes and livelihoods of at least 8,000 households.

Indicator Description		Jan - Dec 2015 Status				Cumulative Achievement	Programme Target			% Complete
OUTCOME INDICATORS		Total	Women	Youth	Target		Total	Women	Youth	
Development Objective: Promoting inclusive green growth, climate change adaptation and mitigation among Small and Medium Enterprises (SMEs) in construction, energy and waste management in order for them to grow and create decent green jobs										
1.	No. of new, decent and green jobs created in target enterprises as a result of project support	2328	226	2143	2000	2660	5000	2500	3000	53%
2.	No. of green jobs whose quality has bzzeen improved	1601	87	1150	600	2018	2000	1000	600	100%
3.	No. of Programme beneficiaries	3968			4000	6667	16,000	8,000	10,000	42%
4.	% annual increase in financial performance reported by target MSMEs by May 2017	17			N/A	2%	2500	30		2%
5.	No of households of project beneficiaries with increase incomes by May 2017	2,328			3000	2,218	8,000			31%
6.	% annual increase based on the number of Programme beneficiaries whose attitude towards doing green business is positive.	41%			5%	31%	5% (16,000)			
7.	Share of MSMEs stating improved ease of doing green business as a result of project supported policy, legal and regulatory reforms by May 2017.	28%			20%	28%	20% (2500)			100%
8.	Average % decrease in energy and water utility costs among houses built with green building materials.	20%				20%	10%			
9.	No. of building using green building technologies and materials.	47 Kalumbila 2,Lumwana 1,Lafarge 5,PPHPZ 28,Thorn Park 1,ZAWIC 10 flats)			50	74	200			37%

Table 1: Quantitative results for the overall programme objective

A supplier of eco-friendly building blocks to the
Barrick Lumwana green demonstration home



Outcome 1

Mindset and Attitudes



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Programme Outcome 1 is focused on increasing the appreciation of green materials, technologies, services and practices among the Zambian public in general and the construction industry stakeholders in particular. This is being done through various interventions including advocacy messages on

mindset change, demonstrations with private sector partnerships, as well as skills and technology development with technical and vocational training centres and universities such as the University of Zambia as well as the Copperbelt University Built Environment School.

Indicator Description		Jan - Dec 2015 Status				Cumulative Achievement	Programme Target			% Complete
OUTCOME INDICATORS		Total	Women	Youth	Target		Total	Women	Youth	
Outcome 1.0: Increased appreciation in the Zambian public at large, and building industry stakeholders in particular, of green building principles										
1.1	Absolute count of people reached with green building advocacy messages	3966 (Media 2,500,000)			5000	3966	18,000	9,000	12,000	37%
1.2	Number of new women National Construction Council registrations	-	-	-	-	-	10%			-
1.3	Number of women businesses upgrading to higher NCC levels	-	-	-	-	-	10%			-

Table 2: Quantitative results of Outcome 1

Spreading the message

To raise awareness, change attitude and behaviour on the appreciation of green building principles among the Zambian public at large, and building industry stakeholders in particular, a communication strategy plan was developed and implemented.

To increase outreach, an official programme information portal was put online under www.zambiagreenjobs.org, an information package about the programme was printed as well as published online. In addition, promotional items such as pens, banners, USB flash drives carrying the ZGJP visual identity were developed in collaboration with project managers. The first official annual impact report of the programme was completed and distributed to partners and the media. An official programme e-newsletter was launched in October and distributed to more than 300 stakeholders. In addition, the programme established accounts on Twitter and Facebook for daily interactions with stakeholders and the general public.

As a result of the increased emphasis given to knowledge-sharing and advocacy on inclusive

green growth and decent jobs, the ZGJP gained significant media attention and featured more than 30 times in international and national news outlets such as the Zambia Daily Mail, the Post (Zambia), Zambia National Broadcasting Corporation, ILO Global Newsroom, UN Climate Change Newsroom and Deutsche Welle. This resulted in an increased awareness of the programme vision and purpose and the importance of sustainable development. The adoption of sustainable development goals and the COP21 Paris Declaration enhance the relevance and strategic fit of the programme.



HE. Timo Olkkonen, Ambassador of Finland to Zambia, Zimbabwe and Malawi helps spread the message about ZGJP.



“By greening the economy, the issue of poverty can be sorted out.”

Dr. Albert Malama,
Dean of the Built Environment School
Copperbelt University



Stories of Change: Zambia

As part of the ILO COP21 communication activities, the ZGJP collaborated with ILO Geneva DCOMM on a ZGJP multimedia presentation with the purpose of showing the impact of ILO's work in the field. The collaboration resulted in a feature page dedicated to the ZGJP published on ILO global web site, where its story was communicated in a variety of formats, including text, photo and video.

Building skills for the future

Partnership with Copperbelt University School of the Built Environment and VTT of Finland

The programme joined hands with the Copperbelt University School of the Built Environment (CBU-SBE) in the mission of creating a new generation of students with green skills. A Memorandum of Understanding was signed setting the framework for a collaboration that taps into the unexplored potential between the two institutions. The partnership will facilitate access to technical expertise, services and facilities, as well as cross-pollination of technical knowledge that will enhance quality and sustainability in the Zambian construction industry. The collaboration is targeted on several different areas including:

- The review of the training curriculum and development of sustainable design training courses for students
- Raising public and industry awareness, changing mindsets and behaviour in green building;

- Research and development of green building materials, products and services including the recognition, testing and standardisation of local traditional green building materials;
- Building demonstrations units at the university and in communities.

As a result, and with technical support and facilitation by VTT Research Centre of Finland, CBU-SBE revised the curriculum of all the four faculties of the SBE, namely:

- Architecture
- Construction Economics and Management
- Real Estate Studies
- Urban and Regional Planning

A new curriculum for green architecture benefitting 150 graduates each year

“The whole world is moving toward green technology and green energy”

Yetambuyu Imasiku,

22 years old, Student in urban and regional planning - Copperbelt University





ZGJP shares experience and best practice on green growth at the Sustainable Enterprises Academy

Green business practices were one of the central topics of the 8th Edition of the Sustainable Enterprise Academy that took place between 31st August and 4th September at the New Government Complex in Lusaka. The five day event brought together government officials, UN representatives, development partners, ILO tripartite partners, academia, civil society and the media from more than 14 countries to discuss and share ideas on the latest developments related to sustainable business development.

Designed as a highly interactive knowledge sharing forum, the Academy offered a wide range of discussion topics on how to promote sustainable entrepreneurship including market systems

facilitation, leap-frogging innovation and technology for the promotion of access to finance as well as enabling policy and regulatory frameworks. ZGJP was present throughout the five-day programme, giving presentations on green entrepreneurship, developing markets for green jobs creation as well as “speed geeking” sessions for the exchange of ideas and know-how on green growth and employment.

The Academy, which took place outside Turin, Italy for the very first time, was officially opened by Hon. Fackson Shamenda, MP, Minister of Labour and Social Security on Monday, August 31st. The academy is jointly organised by the International Labour Organization (ILO), the International Training Centre of the ILO in collaboration with its tripartite constituents

Walking the talk on green growth: Demonstrating green affordable housing with market leaders

Strategic public and private sector partnerships on green and affordable housing solutions have the ability to create new markets for entrepreneurs while improving household income and creating job opportunities. Through partnering with actors from the private sector, the programme has engaged in

the construction of sustainable green demonstration homes. These green homes are aimed at creating a demand for sustainable building practices and knowledge of green living. They are also used as incubators for green skills development for artisans and MSMEs.

What is special about green building



Affordable homes for a sustainable future: Lafarge - ZGJP partnership

The ZGJP has partnered with Lafarge Zambia to construct five demonstration housing units under the project “Makusani”. This is an inclusive business project on promoting decent and green affordable mass housing for inclusive green business growth and job creation in Zambia

By constructing five sustainable demo housing units, green technologies will be showcased and further

replicated to full-scale building projects with 400 units to be constructed in Ndola and an additional 400 units in Lusaka before scaling-up across the country. To support the replication of the housing unit, Lafarge Zambia has launched a housing microcredit scheme with First National Bank Zambia. So far, 57 jobs have been created during the construction of the demonstration units.



Launching of the first green home

On March 27, the first demonstration house of the affordable and sustainable housing project between the ZGJP and Lafarge Zambia was showcased to the media, marking the official launch of the partnership in the presence of representatives from the French Embassy, Finnish Embassy, Government of Zambia, Lafarge and the UN system. The demonstration house has been built using Expanded Polystyrene System (EPS). This technology allows for an improved thermal insulation which is used to reduce energy consumption related to heating and cooling in the building. The benefit of this technology is apart from its durability, a reduced construction cost of about 7% compared

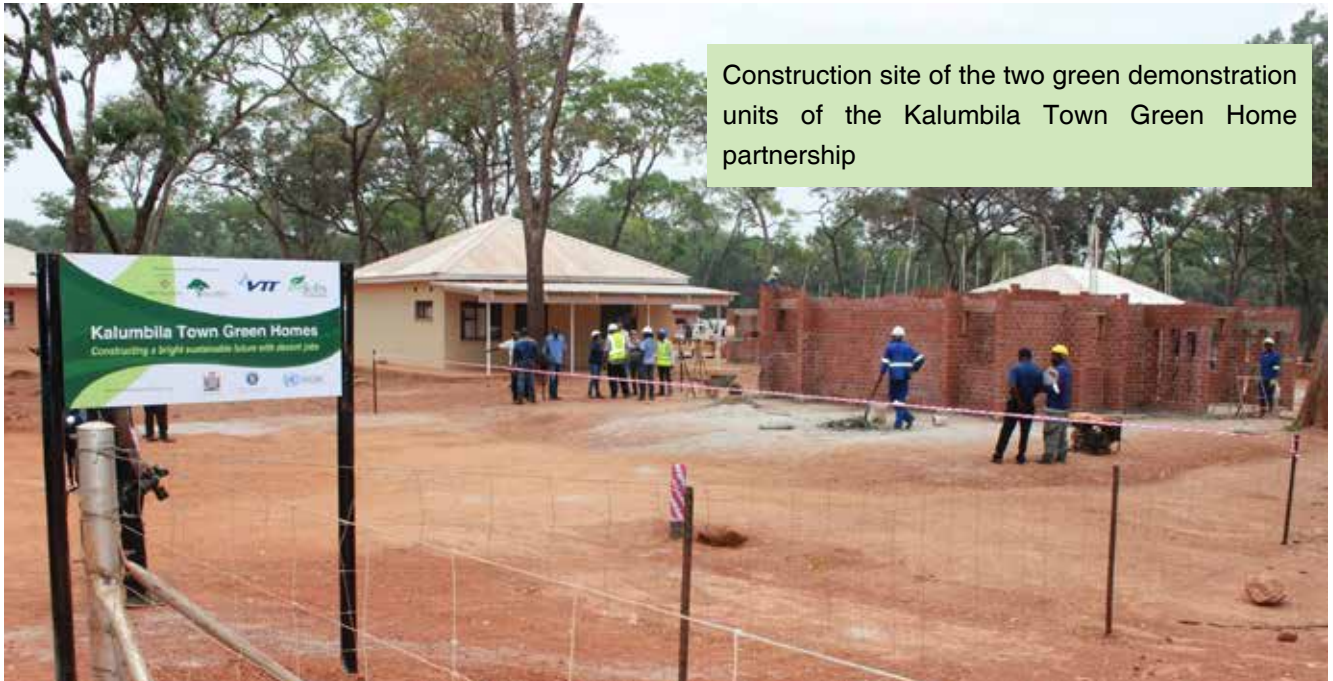
to conventional building technology. During the construction process, Mr. Jeremy Gibberd, expert on sustainable architectural design, was brought in from South Africa to make an environmental assessment of the house. The assessment report and its recommendations has since been used and fed-in to the design and construction of a second demo house, situated in Ndola, Copperbelt Province, to reach a higher level of sustainability. As such, the construction of the demonstration house is not only an awareness raising activity, but also serves as a learning experience for Lafarge Zambia, ZGJP and the MSMEs who have been involved in the construction.

ZGJP - Kalumbila Town - VTT

Green Home partnership

Following approval of the architectural drawings of the houses by the municipal council of the district and allocation of the plots by Kalumbila Town Development Corporation, construction of two green demo units in Kalumbila commenced. The houses

are situated within the central business district of the Kalumbila Town and will serve as models for replication for approximately 10 000 units. In total 23 workers were employed during the construction of the two units.



Construction site of the two green demonstration units of the Kalumbila Town Green Home partnership



VTT Technical Research Centre of Finland provided technical backstopping and guidance during the construction of the sustainable homes demonstration units in Lumwana and Kalumbila Town.

ZGJP - Barrick Lumwana - VTT

Green Home partnership

With municipal approval of drawings and land allocated, the construction of the sustainable demonstration housing unit in Lumwana commenced in April. A total of 22 workers were employed in the process of making stabilised soil bricks (SSBs).

In addition to job creation, the construction allowed for skills-transfer as training on “SSB production and building practices” was conducted on-site by the University of Zambia Technology Development and Advisory Unit (UNZA TDAU). A total of 21 workers

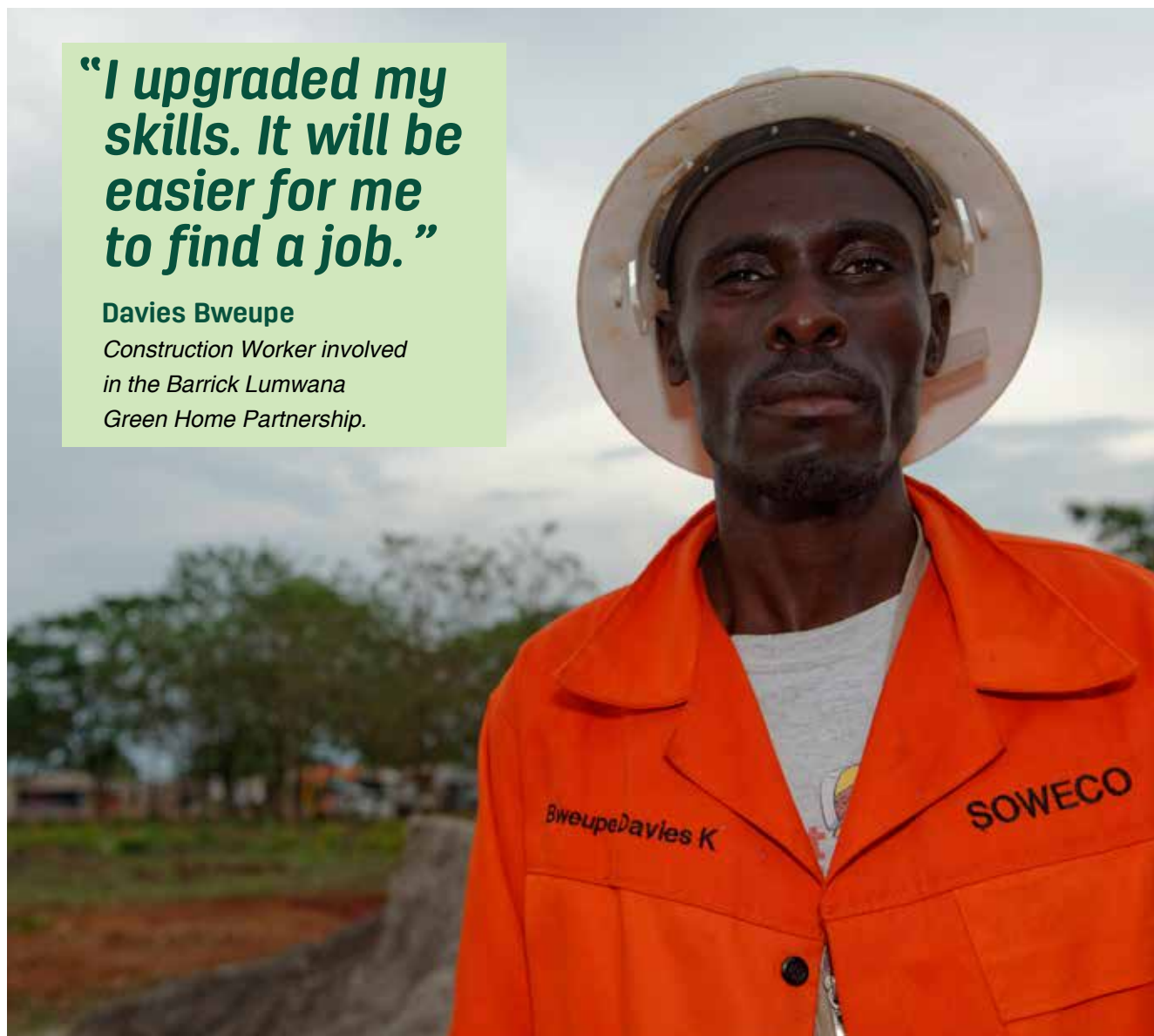
from ten MSMEs benefited from skills upgrading thanks to the use of green materials.

During the construction process of the Lumwana and Kalumbila Town demonstration units, ZGJP partner Thorn Park Construction Training Centre (TPCTC) was engaged to produce and fit wooden door and window frames for the two units including electrical fittings, further promoting the use of locally sourced sustainable building material.

“I upgraded my skills. It will be easier for me to find a job.”

Davies Bweupe

*Construction Worker involved
in the Barrick Lumwana
Green Home Partnership.*



ZGJP – People’s Process on Housing and Poverty Zambia partnership

The partnership with People’s Process on Housing and Poverty Zambia (PPHPZ) is focused on constructing sustainable houses for the very poor segment of the population. In 2015, the collaboration resulted in the completion of a green demonstration unit in Lusaka, which has been constructed using SSBs and created 40 jobs for members of the organisation. In addition, the construction process resulted in skills transfer to the PPHPZ members

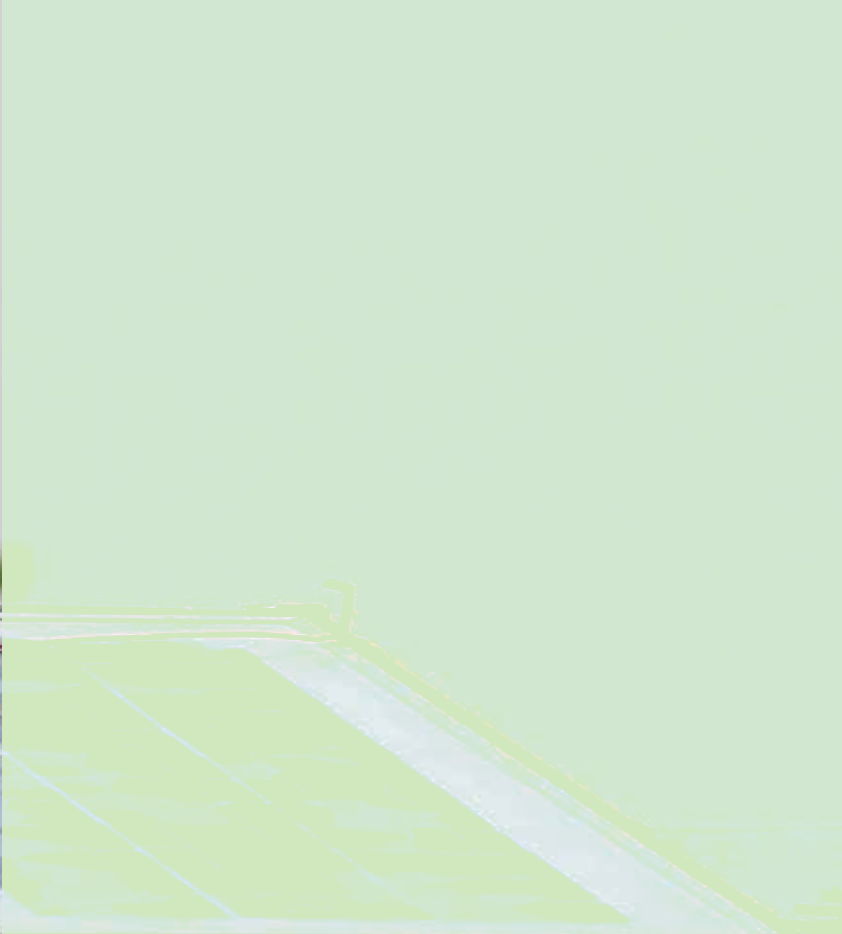
involved in the construction. During the year, PPHPZ was given two contracts by Lafarge Zambia to participate in the Makusani Affordable Housing project, creating further ten jobs.

In total, the replication process will result in 78 sustainable houses to be constructed at the Lusaka site and a further 100 units in other provinces.



SME owner Mr. Logan had seen the Lumwana demo unit and got interested in the interlocking block technique used. Once he learnt about the technique, he decided to purchase a similar SSB block making machine for his business. He is currently constructing a house using the green construction technique and educating his employees on how to make and work with interlocking SSBs

Low-cost housing in Kalulushi retrofitted with solar-panels



Outcome 2

Creating An Enabling Business Environment



International
Labour
Organization



UNEP
United Nations Environment Programme

Programme Outcome 2 seeks to refine regulations that stimulates demand among private and public

housing developers for environmentally friendly building materials, products and methods.

Indicator Description		Jan - Dec 2015 Status			Cumulative Achievement	Programme Target			% Complete	
OUTCOME INDICATORS		Total	Women	Youth		Target	Total	Women		Youth
Outcome 2.0: A refined industry-specific regulatory framework that stimulates demand among private and public housing developers for green building material, products, technologies and methods										
2.1	No. of project-supported submissions for policy, legal and regulatory reform to promote an enabling environment for sustainable enterprises	4			2	4	5		80%	
2.2	Number of buildings utilizing green building materials, products and technologies.	47			50	74	200		37%	
2.3	Worker awareness services: Social Protection	1114			2500	1226	7,000	3,500	16%	

Table 3: Quantitative results for Outcome 2.

Finding the green growth potential in the Zambian economy

Green Jobs assessment and policies

In addition to the construction sector, other segments of the Zambian economy offer significant opportunities for green job creation, particularly renewable energy, public transportation, waste management, sustainable tourism and agriculture. Therefore, the ZGJP is supporting the Zambian Ministry of Finance and National Planning (MoFNP) to develop a Green Jobs Employment Projection Model (GJ-EPM), a tool for estimating the potential for green job creation in targeted sectors of the Zambian economy.

The model will be able to simulate the short- to medium-term impacts of green and conventional policy strategies on employment and income distribution, enabling decision-makers to determine which policy options are most likely to result in the creation of green jobs and poverty reduction. GJ-EPM will also be able to simulate the employment effects of redistribution of economic growth from conventional sectors, such as mining, towards greener sectors, such as renewable energy and sustainable tourism. It will also inform the Climate Change Secretariat on deepening the employment dividend on climate change mitigation and adaptation.

The GJ-EPM will produce:

- A quantitative estimate of existing green jobs in Zambia, by sector
- A quantitative estimate of potential green jobs and related opportunities, by sector
- Estimates of the employment effects of a shift of economic activities from conventional to green sectors (for example, from conventional to green building construction)



Ms. Winnie Kakunta, Barrick Lumwana Gold, and SME workers involved in the construction of a green demonstration home

Forming public and private coalitions on green construction

Zambia Green Building Association

The Zambia Green Building Association (ZGBA) is an independent, not-for-profit, member-based organisation with the mission to drive the sustainable transformation of the built environment. Launched by the public and the private sector on February 26, it serves as a platform for the whole of the Zambian property and building construction industry to collectively create a community that champions the sustainable transformation of the built environment in Zambia.

ZGBA is active in issues related to green building governance, education and technical training, advocacy, awareness raising and green certification that provide means for buildings to be publically recognised as being green.

Activities of the ZGBA include green building site tours to appreciate the sustainable building technologies and principals. Other activities include

professional networking, awareness raising through training workshops, commemorations, exhibitions and attending industry conferences.

Main functions of the ZGBA

Governance

Independent body (Non-profit) with a member board of directors

Education

Develop awareness programs that build skill in industry practitioners

Advocacy

Develop public policies in collaboration with government

Building certification

Provide a certification scheme that accredits a buildings environmental characteristics



On February 26, more than 50 representatives from the private sector, government and academia gathered at the New Government Complex in Lusaka to discuss the establishing of a Zambia Green Building Association (ZGBA).

Increasing productivity through policies & practice for extending social protection to workers in the informal economy

The structure of current social security schemes available to workers and employers is inadequate to respond to the needs and characteristics of work and workers in the construction sector. Additionally, there is lack of mutual knowledge among employers and workers on the importance, operations and social security benefits provided by social security institutions. These challenges contribute to low productivity and poor business performance and threaten the quality of jobs created among MSMEs in the sector. In view of these challenges, the programme has a component aimed at improving social protection coverage to MSMEs and workers in the construction sector. It is expected that increasing access to social protection will promote productivity, enterprise growth and employment creation.

Promoting awareness on business performance and access to social protection in the construction sector

Through a joint initiative with the Law Growth Nexus project, which is funded by the Norwegian Agency for Development Cooperation (NORAD), joint labour law advocacy campaigns were conducted among construction MSMEs with the objective to strengthen the business case for compliance with labour laws in the sector.

Through this initiative a summary guide on labour laws and advocacy training manuals were developed. These incorporated social security as a component of labour laws for the construction sector. They were used by sector associations to conduct labour law advocacy and training meetings among construction MSMEs. A total of 191 MSMEs employers stated that the exercise had given them an enhanced understanding of how adherence to social security is an important investment in human resource and enterprise productivity.

In consultation with Workers Compensation Fund Control Board (WCFCB), National Pension Scheme Authority (NAPSA) and sector associations, the project developed social protection practical communication materials and guidelines. The dissemination of the awareness materials was launched during social security awareness campaigns and has continued through the sector associations.

Innovative social security mobile registration campaigns to increase outreach to the informal economy

A first phase of mobile registration campaigns conducted resulted in about 300 workers being registered with the work injury and pension schemes. The single window approach in delivery of social security services by NAPSA and WCFCB will increase efficiency of social security services. This will also contribute to reduction of transaction costs for beneficiaries and support enhanced collaboration and coordination among different social security agencies.

ZGJP provided technical and financial support to social protection registration campaigns conducted by NAPSA and WCFCB among members of the Copperbelt Sawmillers and Timber Growers Association, Zambia National Association for Sawmillers in Ndola, Kitwe and Livingstone.

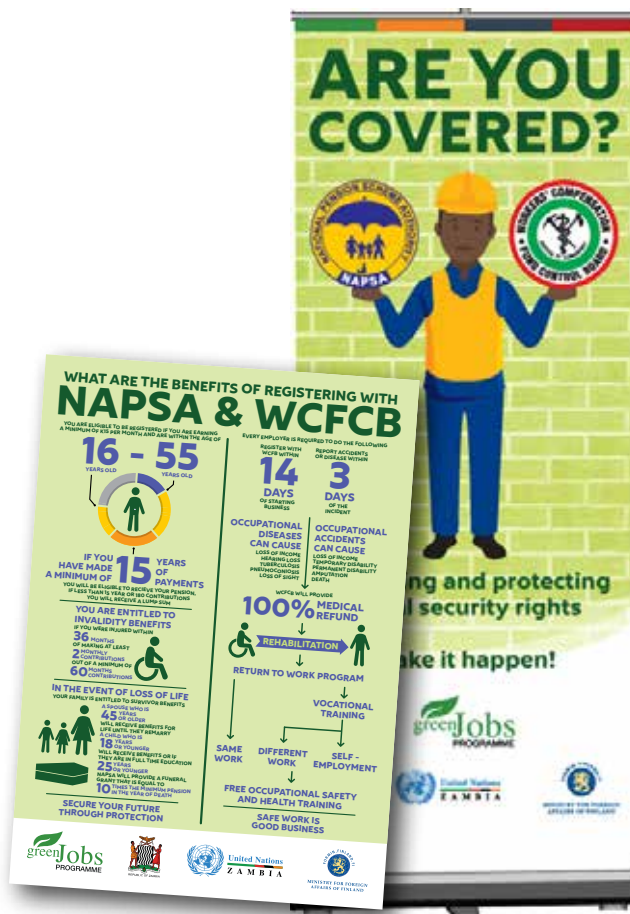
Innovative mechanisms for social security coverage developed

Structures of current social security scheme require adjustment of certain requirements to facilitate effective coverage among MSMEs in the construction sector, therefore management of social security institutions, with technical support of the programme, designed the following flexible administrative

measures to encourage registration of MSMEs in the construction sector including:

- Flexible cutoff date for registration of MSMEs in construction sector
- Flexible payment plans and design of nil returns system
- Operationalization of mobile offices
- Simplified record requirements for social security registration

To further increase awareness of the link between business performance and the role of social security in the construction sector, an advertisement was published in the sector publication "Construction Review Magazine. Reporting on major construction industry developments throughout the continent, Construction Review is a marketing tool that chronicles, and promotes development in Africa. The Construction Review Magazine has an estimated readership of 7,220 in West Africa and 12,749, in East and Central Africa.



Publicity materials developed for increased awareness of the benefits of social security coverage

Green building policies, regulations and standards

Greener building practices require a regulatory framework that is both enforceable, and receptive to the needs of the industry. ZGJP provides technical assistance to key actors in government, statutory bodies and civil society to shape an enabling regulatory framework which supports a transition towards green and sustainable building and construction practices.

The programme works in close collaboration with the Ministry of Local Government and Housing, Ministry of Transport, Works, Supply and Communication, National Council for Construction (NCC) and the Zambia Environmental Management Agency (ZEMA)

to identify which pieces of policies, guidelines and legislation are relevant for revision. A draft policy review document on the National Construction Policy, the Building Regulations within the Public Health Act, the National Forestry Policy has been done. A Sustainable Built Assessment Tool (SBAT) has also been developed and will be used in conjunction with the existing Built Environment Sustainability Tool (BEST) in assessing the demonstration houses built by the programme in 2016. As a result of these collaborations, a number of policies, strategies, guidelines and legislation are in different stages of development or revision, including:

Sustainable housing guidelines

The Sustainable Housing Guidelines have been validated and finalised by the Ministry of Local Government and Housing through a detailed stakeholder consultation process. The guidelines define what green buildings are as well as give performance criteria and guidance on social, environmental and economic aspects of a green building including a checklist for measuring this performance.

The guidelines are expected to be officially launched in 2016

Construction sector Environmental Impact Assessment guidelines

The development of the Environmental Impact Assessment (EIA) guidelines for the building and construction industry are about to be concluded. As constructing, maintaining and using buildings for homes and employment have a great impact on the environment, the EIA guidelines have been developed to predict environmental impacts of property development activities and to provide an opportunity to mitigate against negative impacts and enhance positive impacts.

The EIA guidelines give practical recommendations for environmental assessments to all parties involved in developmental projects and detailing, as well as specific directives for construction projects that have already been commenced. The EIA guidelines

will also function as benchmark for the design and assessment of construction projects in a more systematic and sustainable way.

Draft Sustainable Built Environment Policy Review

In May 2015, a draft sustainable built environment policy review was presented to stakeholders for validation after receiving comments from relevant stakeholders. It was agreed that the review was not comprehensive as it covered only a few of the policies and legislation relevant to the construction industry. As a result, a more comprehensive review has been carried out on policies and legislation that included the Decentralization Policy, Draft Land Administration and Management Policy, Housing (Statutory and Improvement areas) Act, National Water Policy, Transport Policy, Vision 2030, Revised Sixth National Development Plan (2013 - 2016), Draft Water Supply and Sanitation Policy, Draft Building Maintenance Policy, Local Government Act, National Council for Construction Act, the Urban and Regional Planning Act, Guide Notes for the District Councils.

Awareness and capacity building of public sector professionals on green building practices

As part of the efforts in shaping policy and government institutions, the NCC in partnership with ZGJP successfully conducted a training workshop on green building practices and technologies. The training targeted planners, architects and engineers to enhance skills and appreciation for green construction as well as building institutional capacity.



Government officials trained in green construction technologies

As a result, 44 government officials were trained in topics ranging from sustainable construction technologies and sustainable urban planning, to economic performance of green buildings. To promote institutionalisation, the participants represented government planning agencies that

are key in shaping the regulatory framework and to stimulate the uptake of green construction in the Zambian building construction sector. Particular focus was put on enhancing technical know-how and appreciation of green building principles.



Mutinta Sichali, a Zambian architect who has designed affordable eco-friendly houses to be used as a model for ZGJP.

Member of Masulwila Crafts Manufacturer,
supplier of SSBs



Outcome 3

Promoting Green Growth And Green Jobs



International
Labour
Organization



UNITED NATIONS
UNCTAD



Food and Agriculture Organization
of the United Nations



International
Trade
Centre

Indicator Description OUTCOME INDICATORS	Jan - Dec 2015 Status				Cumulative Achievement	Programme Target			% Complete
	Total	Women	Youth	Target		Total	Women	Youth	
Outcome 3.0: MSMEs have enhanced capacity to effectively participate in the building construction and green building goods and services market in Zambia									
3.1 Total no. of nascent, new and established entrepreneurs (MSMEs) reached with business support services	1,346			500	2,212	2,500	1,250	1,500	88%
3.2 No. of MSMEs accessing financial services (ITC)	68			550	153	2,500	1,250	1,500	6%
3.3 No. of MSMEs accessing business management and technical skills (ILO)	640			500	734	2,500	1,250	1,500	29%
3.4 No. of MSMEs with market access and business linkages (UNCTAD)	70			500	178	2,500	1,250	1,500	7%
3.5 No. of MSMEs accessing policy advocacy and lobbying services (UNEP)	No data			500	-	2,500	1,250	1,500	
3.6 No. of MSMEs accessing forestry management and certification services (FAO)	143			500	701	2,500	1,250	1,500	28%
3.7 No. of trainers trained in entrepreneurship promotion and green business support service provision	86			100	165	150	50	50	100%
3.8 No. of workers reached with training and other business support services	873			2500	2,879	7,000	3,500	3,500	41%
3.9 Worker awareness services: Occupational Safety and Health	353			2500	770	7,000	3,500	3,500	11%
3.10 Worker services awareness: HIV and AIDS	0			2500	-	7,000	3,500	3,500	0%

Table 4: Quantitative results of Outcome 3.

Building skills for the future

Affordable clean energy through solar skills training partnership

The collaboration between ZGJP, People's Process on Housing and Poverty Zambia (PPHPZ) and Thorn Park Construction Training Centre (TPCTC) is aimed at strengthening green building construction skills trainings geared towards students and MSMEs.

A total of 36 members were trained in solar panel assembly and 28 were trained in solar panel installation and maintenance. The exercise was carried on low-income housing stocks in Kitwe, Kalulushi and Ndola. A total of 30 housing units were retrofitted with solar panels in the respective districts.

After training in solar panel assembly, installation and maintenance, the graduates have formed a company "Copperbelt Solar Systems Limited" which is registered under the Patent and Companies Registration Agency (PACRA). A business plan has been developed and financing is being solicited. The business proposal is being reviewed by PPHPZ with technical input from ZGJP enterprise officer.

In addition, individuals trained in solar panel installation are using the skills to provide a service to members in their respective communities for installing solar panels, bringing electricity to the families home's for the very first time

“We registered a company and we want to start making solar panels on a large scale. We are going to have jobs making solar panels. This will help us escape from poverty.”

Emmery Matongo

mother of seven, construction and solar panel trainee



Green entrepreneurship

The certification process of the Start and Improve Your Green Construction Business (SIYGCB) trainers continued. By the end of the year, all trainers trained in the SIYGCB programme had been certified. During the year, programme implementing partners in the SIYGCB programme developed a national SIYGCB rollout plan targeting to train 300 MSMEs.

By the end of 2015, 3 Training of Entrepreneurs (ToEs) were conducted and 77 MSMEs were trained. Using the SIYGCB module zero, NCC reached 527 MSMEs in nine provinces in Zambia, increasing the outreach of the SIYGCB training package to 604 MSMEs well exceeding the target of 300 set at the beginning of the year.

Promoting green technology and services

University of Zambia skills partnership

The programme is collaborating with University of Zambia Technology Development Advisory Unit (UNZA TDAU) to promote skills on Stabilised Soils Blocks (SSBs) production and building among construction MSMEs. To this end, the TDAU has developed and is currently producing, interlocking brick making machines in TEVET schools which both

supports the green technology and is affordable.

During the process of the demo house construction in Lumwana, the main contractor (SOWECO Construction Company) and ten other MSMEs from Lumwana Community Local Business Association were trained by TDAU in SSB production and building.

Omba Lacey, Katcey Construction



Omba Lacey runs a house construction business Lusaka. In 2014, she participated in the training course “Start and Improve Your Green Construction Business.” This was an eye-opener for her. In 2015, together with 15 men and women who also attended the same SIYGCB training, she decided to establish a green consortium to deliver green goods and services.

“We recently constructed a house where I could put what I learned into practice. I saved a lot of time and money by using locally-sourced materials

such as timber for roofing, door and window frames, compressed earth bricks for the walls, rainwater harvesting for water and solar panels for energy. The cost of building a house can be slashed by up to 70 per cent, which also makes houses more affordable for everyone,” she explained. She was also taught not to cut down all the trees at a construction site, and to use the timber of the trees she had to clear to build the house. Previously, Lacey would import all her construction materials from South Africa and China which increased both the cost of construction and maintenance.

Promoting safe and healthy work conditions

As the construction sector involves activities that may expose workers to serious workplace safety and health hazards, a component dedicated to Occupational Safety and Health (OSH) was developed and included in the programme.

Strengthening of OSH legislation

The draft Construction (Safety and Health) Regulations were unanimously validated at a two-day stakeholders’ workshop held in Chilanga in December. Participants in the workshop included representatives of Zambia Federation of Employers (ZFE), Zambia Congress of Trade Unions (ZCTU)

and various government institutions including the Ministry of Labour and Social Security (MLSS). The regulations are expected to become public law in 2016, meaning that Zambia will have up-to-date Construction (Safety and Health) Regulations adapted to green construction practices.

Development of OSH TEVET Curriculum

Following a training needs analysis conducted by Thorn Park Construction Training Centre (TPCTC) in June 2015, a final draft OSH TEVET Curriculum was developed. Having an OSH curriculum hosted in TEVETA, which is the regulator of all technical and vocational training institutions in Zambia, will have a positive impact on OSH at national level.

Did you know that there is also a business rationale behind OSH compliance? Enterprises with good OSH practices tend to be more productive and competitive due to:

- reduction in loss of work hours arising from accidents;
- reduction in loss of equipment and property arising from accidents;
- reduction in insurance premiums;
- reduction in labour turnover; and
- promotion of a sense of security and good morale among workers.

Construction of the Kalumbila Town Green Homes



OSH Training Manual

The draft OSH Training Manual was completed in September. The training manual will initially be used by TPCTC to integrate OSH into its technical and vocational courses, run standard short courses on OSH and run tailor-made OSH in-service courses for practicing artisans.

OSH in practice: OSH Centres of Excellence

With the purpose of promoting productive, safe and healthy work practices in the sawmilling sector, two OSH Centres of Excellence have been established by the sawmillers Simbrofa Investments Ltd. in Kalulushi and Mwada Marketing Services Ltd in Mufulira, Copperbelt Province. The concept of the OSH centres of excellence was developed by the ZGJP in collaboration with the two associations for sawmillers in Zambia, COSTIGA and ZNAS.

The objectives of the OSH Centres of Excellence are twofold:

1. To develop a best practice on OSH in selected sawmilling enterprises so that they could serve as a means of benchmarking OSH in other enterprises in the sector; and
2. To make a business case for OSH by demonstrating that good OSH practices reduces costs and improves business productivity.

The proprietors of the two sawmills and their supervisors participated in OSH trainings conducted by the ZGJP and have subsequently chosen to

implement OSH intervention measures at their own workplaces with technical input from the programme.

Interventions implemented to create a safer, healthier and more productive, workplace include:

- Improvement on housekeeping
- Introduction of a more logical and safer workflow
- Designation of an emergency assembly point
- Servicing of fire suppression appliances
- Strict supervision of the use of personal protective clothing and equipment
- Recycling of waste products such as sawdust and timber offcuts which is sold to industries as biomass

Positive spill-over effect

Upon seeing the positive changes taking place at the sawmills following the OSH interventions, some of the sawmillers located in the same areas have started making improvements to the safety of their own workplaces using their own resources. One major area of intervention which has been embarked upon was the procurement and installation of fire-suppression appliances. Currently, over 20 more sawmills located in various Copperbelt towns are being upgraded to OSH centres of excellence.



Deepening access to markets and business linkages

UNCTAD's role in the ZGJP is to facilitate the creation of commercially viable links between large corporations and MSMEs in Zambia's green construction industry. This is done through the Business Linkages Programme, a multi-stakeholder initiative that seeks to design and implement the necessary measures, incentives and strategies to transform Trans-National Corporations (TNC)-MSME linkages into sustainable business relationships that improve the performance, productivity and efficiency of stakeholders within an industry through market access, knowledge, skills and technology transfer.

Unlocking business linkages through inter-agency collaboration

The business linkages component, leveraging the programme's demo-house activities and in conjunction with its implementing partner – the Zambia Development Agency (ZDA), managed to engage further with partner TNCs such as FQM Kalumbila mine, Barrick Gold, Copperbelt Energy Corporation and Lafarge. Through these collaborations 70 market access and business linkages results were recorded. Breaking these further, 55 MSMEs benefited from skills, knowledge and technology transfer. 15 attained market access as subcontractors and green building material suppliers. These results together with those attained in 2014, brings the total number of results to 178 enterprises benefitting from business linkages and market access.

The Zambia International Property Expo

One of the major highlights of the year was the participation in the first ever Zambia International Property (ZIP) Expo. The programme co-sponsored and co-organized the Zip Expo with UNCTAD taking the leading role in the implementation of the activities. Taking place at the Government Complex in Lusaka from 22 to 23 April, the Zip Expo attracted exhibitors from 5 different countries including Zambia, Zimbabwe, South Africa, Italy and the US. The

The business linkages component aims at:

- Identifying business linkage opportunities for MSMEs in targeted areas
- Building the capacity of the investment agency to attract leading global green building companies to Zambia
- Raising awareness among large companies on the potential benefits of linking with local suppliers
- Developing skills and upgrading capacity of MSMEs in green building
- Improving enabling environment conditions and introducing proactive business linkage support policies

exhibitors occupied a space of 2500 square meters and represented all aspects of the construction sector. More than 1000 industry professionals and visitors participated in the two-day expo.

The programme was represented with a Green Jobs both introducing the "Business case for affordable green construction in Zambia". The ZGJP also had a prominent part of the official expo conference programme hosting panel discussions on the benefits of sustainable building practices and the job creation potential of green construction.



ZGJP both at the 2015 Zip Expo

Bauma Conexpo, Johannesburg

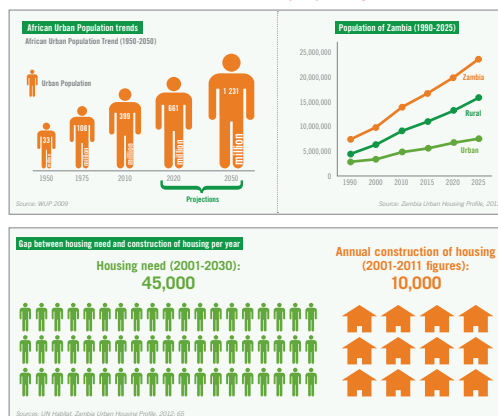
A business linkages delegation participated in the Bauma Conexpo Africa in Johannesburg, South Africa in September. The delegation included the Secretary General of the National Association of Medium and Small Scale Contractors (NAMSSC) and 3 MSMEs - specifically, one contractor, one material supplier and one sawmiller. The objective of their participation was to develop partnerships with large firms who have a business model that can offer linkages opportunities.

During the Conexpo, the participating MSMEs strategically navigated through a matchmaking list with visits and one-to-one meetings with 14 companies. As a result, the delegation received 6 expressions of interest from Geoplast, Progress Group, Sahydri Industries, Afri-Greener Wood, Euro Drain Technology and Forefront Engineering Solutions. The delegation was also invited to an on-site visit to Saint Gobain facilities near Johannesburg.

The Minister of Works and Supply, Hon. Yamfwa Mukanga, also attended the Bauma Conexpo event and presented a key note speech in which he shared aspects of Zambia's investment climate, with specific focus on the construction sector. He stressed the importance of the business linkages programme and supported the Zambian delegation of contractors and suppliers for business development and networking.

» Business Linkages for Green Affordable Housing in Zambia

* 1. Increased urbanisation and need for affordable quality housing

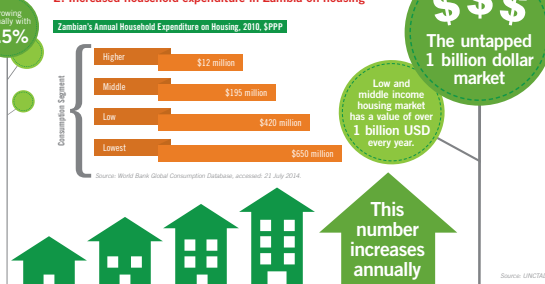


In Zambia, the housing backlog will reach **1.3 million** by 2030

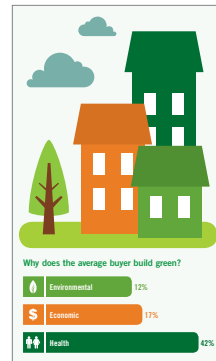
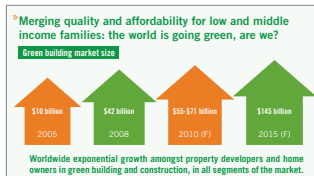
"There will be a need for about **1.3 million** new urban dwellings between **2011 and 2030** or **one house** every **two minutes** of a working day for **19 years.**"



* 2. Increased household expenditure in Zambia on housing



* 4. Going green = going local



* 5. Matching interests, creating business: Opportunities for local MSMEs and international firms



Awareness-raising materials developed on the business-case for sustainable and affordable housing in Zambia.

Preparing MSMEs for green business linkages

Based on UNCTAD's Empretec methodology, the entrepreneurship training component seeks to enhance the entrepreneurial skills of small-scale suppliers and contractors, building their capacity to establish more profitable and long-lasting business relationships with large enterprises. The first annual Empretec workshop was offered to 21 sawmillers in the Copperbelt Province in March. The following workshop saw the participation of 25 contractors from NAMSSC and the District Business Association (DBA) in the Southern Province during the month of August. The participants displayed great enthusiasm to learn and apply the different concepts throughout the workshop. This was the first attempt towards introducing environmentally friendly business practices within an Empretec training workshop (ETW).

Training of trainers on developing environmental competencies

Twenty entrepreneurship trainers attended Training of Trainers workshop on "Developing Environmental Competencies", acquiring skills to improve the integration of green technologies in four specific areas such as:

- Communication
- Technological awareness
- Planning
- Leadership

The Empretec trainers were able to embed sustainable and environmentally friendly aspects as participants were guided to recognize, practice and apply certain behaviours during the training modules. The exercise requested participants to gather information about a "green" construction business and to identify the social and economic benefits. The workshop evaluation reported that 95% of the participants thought that the training was excellent. The whole group of 25 people received certification having duly completed the tasks assigned by the trainers.

MSME Health Checks

MSME Business Health Checks (Performance Assessment) provide vital information about the status of an MSME before or after supplying or subcontracting to large corporations. Ordinarily capacity building interventions follow a health check exercise. The key characteristics of the Health Check include the provision of a business diagnostic service, identification of areas for improvement and help in accessing the full range of assistance and the services of the programme and its partners.

In August, a field trip to the Northern Province was organised in collaboration with ZDA staff who conducted the assessment interviews with support from UNCTAD. 12 MSMEs were screened through UNCTAD's standard assessment scorecards and their performances assessed. Six materials suppliers underwent the assessment exercise. A majority of these MSMEs were aware of the effects of their businesses on the environment and most of them indicated the need for preservation of the environment as one the reasons they ventured into that type of businesses. Among the 12 MSMEs were the four that had been selected to participate in the 2015 Bauma Conexpo study tour.

Sustainable forestry

Empowering forestry small-holders and increasing household income

Timber is an important input material into the building and construction supply chain and for that reason the programme includes the entire timber production and supply chain. Empowering forestry small-holders and community enterprises to be capable growers and suppliers of legal and sustainable wood products to construction companies is the main objective of the Food and Agriculture Organisation (FAO) within the ZGJP.

MA&D Training of Trainers (TOT) certified

The training package Market Analysis & Development (MA&D) provides skills to communities on how to sustainably manage forestry, not only timber but also non-wood products such as honey from bee-keeping, mushrooms, and caterpillar harvesting. This will not only allow an increasing number of families an added income from growing, processing and trading of wood products and strengthen the local value-chain, but also ensure conservation of nature.

As a follow up to the first cycle of the Training of Trainers (TOT) in MA & D, the second and final cycle was organized. The trainees were selected from Zambian institutions that have working experience with MSMEs in different regions of Zambia. A total of 16 trainers were certified MA&D trainers upon successfully completing the training which was held in Lusaka from the 23rd to 27th February.

The trainers were subsequently assigned to replicate the trainings to the community facilitators in their organizations. In total, 63 timber growers in Chongwe and Chibombo districts were trained.

Sawmiller Training Manual Developed

With an overall objective to help improve on the technical and enterprise development skills training, the small-scale sawmiller's training manual was developed and validated. The training manual focuses on sawmilling, productivity, quality

management, saw-doctoring and wood-harvesting. The modules and lessons are aimed at providing sawmill owners, supervisors and workers with adequate knowledge and skills on the technical and organizational aspects of sustainable sawmilling. The training manual is designed to be institutionalized by TEVETA registered and other training institutions

Training in nursery establishment and management

In partnership with the Forestry Department under The Ministry of Lands, Natural Resources and Environmental Protection, Letters of Agreements were signed for the implementation of nursery establishments and management trainings in Solwezi, Chipata and Chongwe districts of Zambia. The objective of the training was to enable the communities to establish and manage their own tree nurseries at community level as well as to enable them establish their own woodlots in order to supply raw material to the timber industry. A total of 112 community members built capacity in nursery establishment and management.

Towards a Forestry Code of Conduct

Building on stakeholder discussions commenced in 2014, the Code of Conduct Stakeholder's Formulation Workshop for the Zambia Green Jobs Programme was held on 12th and 13th November. A total of 20 participants from Government ministries such as Forestry department, the Zambia Forestry College, Zambia Forestry and Forest Industries Corporation (ZAFFICO), ZEMA, CBU, Zambia Bureau of Standards (ZABS), and ZDA, as well as private sector players including the Copperbelt Forestry Company, Rainland Timber, TPAZ, ZNAS, and COSTIGA, were present to give their inputs. Consultations were undertaken on feasibility study of the forestry code-of-conduct, guidelines, eco-labelling and forest certification in Zambia. A draft code of conduct for the forestry sector was developed and is ready for validation by the stakeholders. The Code of Conduct will be validated and launched in 2016.



Chainsaw operator in a ZAFFICO controlled plantation on the Copperbelt.

Broadening access to capital and financial services for MSMEs

The Access to Finance (A2F) component is tasked to assist MSMEs in the building and construction sector to access financial services. To achieve its mandate ITC, in collaboration with the Zambia Development Agency (ZDA), is providing MSMEs with financial education and advisory services including the preparation of bankable business plans on one hand and working with financial services providers (FSPs) through the Bankers Association of Zambia (BAZ) in order to make them more responsive to MSME needs on the other. Development Finance Institutions (DFIs) such as the African Guarantee Fund (AGF) are also engaged with to put in place guarantee schemes / credit lines to make FSPs more comfortable to finance and develop green financial products for MSMEs.

MSME financial education and mentorship by FMCs

18 Financial Management Counsellors (FMCs) were trained and currently providing 108 MSMEs from the six targeted provinces with business development services (BDS) including the preparation of bankable business plans. Riding on Start and Improve Your Green Construction Business (SIYGCB) workshops organised by the National Council for Construction (NCC) and Empretec ETW, ITC sensitised 171 MSMEs about the A2F component of the ZGJP and provided them with financial education training.

The FMCs have been encouraged to motivate the MSMEs to look into their operations, structures and governance for the purpose of making improvements in their financial business practices, attitudes and assisting with business plan preparation. These multi-level relationships are also aimed to create, develop and maintain networks between FMCs and MSMEs and instil confidence between the two parties.

Guarantee Schemes for affordable SME finance

The African Guarantee Fund (AGF) has been engaged with to provide a credit guarantee scheme to the Development Bank of Zambia (DBZ) to lend to the Timber Value Add Coop (TVAC). A partnership is to be made with DFIs such as AGF to partially make up for the collateral requirements.

Support was rendered to the start-up of a Credit Union for the Zambia National Association of Sawmillers (ZNAS), an association of more than 500 MSMEs. The Credit Union is meant to raise capital for members at more accessible interest rates by guaranteeing loans and providing working capital and short term funding.

The A2F component will continue providing coaching to MSMEs, organise some workshops for FSPs in relation to green finance and in partnership with ILO set up a credit guarantee fund facility by leveraging the relationship with AGF.



Solar-panel training graduate

Independent Mid-Term Evaluation Results

The independent mid-term evaluation of the Zambia Green Jobs Programme conducted in September and October, was commissioned by the Government of Zambia, the United Nations participating agencies FAO, ITC, UNCTAD and UNEP led by ILO as the convenor and Administrative Agent of the Joint Programme, and the Government of Finland as the Donor.

The evaluation found that the design of ZGJP has remained relevant considering the country priorities on 'creating decent jobs particularly for young people and creating wealth to ensure a greater provision for social safety nets'. The national development plan, policies, strategies and action plans of the Government of Zambia, country assistance plan and private sector development strategy of the Government of Finland and the UN System in Zambia were all found to resonate well with the programme objectives and activities at meta, macro, and micro levels of the Zambian economy. The programme was also noted to be relevant to nearly all Sustainable Development Goals (SDGs).

The evaluation stated further that the ZGJP programme design is coherent and responds to underlying challenges for promoting sustainable enterprises and the creation of decent green jobs through private sector development. In addition, the evaluation established that ZGJP is on course on most of its key performance indicators. At the time of the evaluation the programme had supported the creation of 2,549 new green and decent jobs in MSMEs enterprises mainly in the North Western (754), Copperbelt (600) and Southern Provinces (509). This figure excludes 3,600 cases of casual employment recorded in the form of temporary and part-time jobs. In the last two years the Zambia Green Jobs Programme has benefitted more than 6,667 enterprises and workers. Resulting from this it was established that 2,554 households reported increased income.

Therefore it was concluded that the programme is well on course to meet its overall target of 5,000 new green and decent jobs by 30 April 2018.



Members of the ZGJP Steering Committee at a guided visit to the ZGJP-Lafarge Sustainable homes site in Ndola.

Challenges, Recommendations and Actions Taken

During the course of the year, some of the programme assumptions turned into real risks as the business environment worsened due to economic challenges such as currency depreciation, reduction in credit rating and FDIs, falling copper prices and job losses in the mining sector, an energy crises affecting industrial growth combined with political uncertainty caused by upcoming elections in 2016.

Despite risk mitigation measures taken, overall the business environment affected the ability of MSMEs to create, and in some cases, maintain full-time equivalent jobs.

In addition, although the US Dollar is the UN System currency for all operations, the financing agreement (SAA) with the Government of Finland is in Euro and paid in instalments. Due to the strengthening of the USD and the lack of a financial risk mechanism against exchange rate losses, the programme suffered a financial loss which impacted its ability to deliver some of the planned activities. Activities on HIV and AIDS response were put on hold in search

of synergy and collaboration with suitable civil society actors.

A consolidated action plan on how best to implement the independent mid-term evaluation recommendations, as well as strategies for handling the emerging risks has been developed. Recommended mitigation measures include the possibility of a no-cost extension in view of political election disturbances; revision of sustainable forestry target groups; streamlining of operational guidelines in the programme MoU; shift focus to growth-oriented SMEs that can operate in the current business environment; more emphasis on business linkages with large firms; a review and possible change of programme indicators; decrease the geographical scope of the programme where results are likely to occur and; explore opportunities for basket funding.

The consolidated action plan was presented to the ZGJP Steering Committee in November for review and subsequently approved.



Masulwila Crafts Manufacturer, supplier of sustainable building materials, Lumwana



Ms Belina Chipili, resident at the Kalulushi compound who has had her home retro-fitted with a solar-panel, bringing electricity to her home for the very first time.

Programme Good Practices and Lessons Learned

During the 28 months of inception and implementation and building on the outcomes of the independent mid-term evaluation, several good practices and lessons learned could be identified:

Programme designed as integrated, mutually reinforcing and supportive package of development support achieves better and more attributable results than a single intervention. This multipronged approach not only improves attribution but more importantly enables MSMEs to have access to the policies, incentives, finance and business development services that they need in order to grow and create jobs.

Partnerships with large private sectors enterprises involved in large scale housing projects (Lafarge, Kalumbila mine, and Barrick Lumwana mine) have enabled the programme to leverage its interventions and now have potential to scale-up and increase the number of buildings using

green technology and materials at affordable cost. The associated business development services and facilitation of market and business linkages of micro, small and medium enterprises (MSMEs) with these large private sector enterprises has scope for increasing MSMEs' participation in the green housing construction. The success of this strategy hinged on developing a clear business case: affordability and market palatability. Sharing risk and proof of concept through evidence building with the construction of demonstration houses showcased and facilitated stronger private sector buy-in and participation. However, programme team composition should include those with private sector experience who are fluent in the language and practice of business today.

Opportunities for greater outreach, scale and impact there are significant opportunities to broaden the national outreach through collaborations and synergies with similar private sector development programmes to further boost scale and outreach.

The programme has, by utilising the building construction sector, demonstrated a viable private sector development model for inclusive green growth and the creation of decent green jobs in Zambia which can be scaled-up and replicated to other key sectors of the economy to promote sustainable development. This is in line with Zambia's global commitments on the Sustainable Development Goals (SDGs), especially Goal 8 on inclusive economic growth and job creation, as well as on climate change mitigation and adaptation.

Establishment of a Programme Management Unit.

Housing staff from all participating agencies in the UN joint programme and hosted in the ILO Lusaka Office as the Administrative Agent (AA) has several positive spin offs: (1) work streams are streamlined and therefore easier to manage; (2) close oversight of the programme management; (3) team work is strengthened; and (4) collaborations to realise DaO are easier to foster. This approach represents a departure from the management arrangements of joint programmes which have traditionally included either a management unit staffed by one agency staff coordinating the programme or individual staff members based in their Agency Offices. The measurable impact of this approach is increased effectiveness and cost efficiency through collaboration and delivery of joint activities between agencies. The condition for establishing a Programme Management Unit of this nature should be incorporated in a Memorandum of Understanding (MoU), signed by all participating UN agencies which clarifies expectations and intentions with the approach. Housing the participating UN agencies in "one office" needs to cultivate trust among UN agencies that placing the Programme Management Unit in one agency does not remove the staff's reporting responsibilities to their "home" agency. This is important given the nature and structure of the UN system where each agency has its own mandate and performance management systems.

Annual UN joint planning workshops that include all stakeholders help set priorities, foster local ownership, create synergies and efficiency as well as cultivate stronger partnerships and teamwork.

Not every agency should be in a joint programme, the fewer the better the coordination. Agencies with smaller budgets increase the costs of implementation (the cost of management and administration). In some cases the programme may not receive the adequate attention it requires from participating UN agencies with comparatively lower budgets. In cases where an agency is required but the budget is limiting alternative engagement mechanisms can be sought outside the pass through funding arrangement when an agency is deemed useful to particular programme interventions but the resource envelope is small. Further when developing a joint programme it is important to ensure there is common understanding and critical assessment of agency implementation approaches to ensure their alignment and that their combined through-put leads to achievement of the programme objectives. Private sector development delivers poverty reduction through job creation. In private sector development programmes, the focus is on facilitating enterprise development to in turn spur job growth which becomes transmission mechanism for poverty reduction. In the Zambia Green Jobs Programme the social interventions at community level did not generate enough momentum to achieve enterprise development and growth.

Towards an Inclusive and Green Economic Growth and Decent Green Jobs

The ILO defines **green jobs** as “the transformation of economies, enterprises, workplaces and labour markets into a sustainable, low-carbon economy providing decent work”. Decent work is defined by the ILO as being productive work for women and men in conditions of freedom, equity, security and human dignity. More specifically, UNEP, ILO, the International Organisation of Employers and the International Trade Union Confederation together broadly define a green job as any decent job that contributes to preserving or restoring the quality of the environment, be it in agriculture, industry, services or administration. In practice these jobs: (i) reduce consumption of energy and raw materials; (ii) limit GHG emissions; (iii) minimize waste and pollution; (iv) protect and restore ecosystems; and (v) enable enterprises and communities to adapt to climate change.

A greener economy, as a way to achieve sustainable development, is not optional for sustainable enterprises and labour markets, it is

a necessity. Escalating natural resource use and pollution will compound the growing scarcity of fresh water and fertile land and accelerate the loss of biodiversity and climate change beyond tolerable – perhaps even manageable – levels. The overuse of natural resources, such as forests, fish and clean water, and the rising levels of pollution, including emissions of greenhouse gases (GHGs), are increasingly exceeding planetary boundaries. The damage to economies and to society caused by environmental degradation has the potential to undo many of the gains in development and poverty reduction achieved over the past decades. Unresolved social challenges, such as unemployment (particularly among youth), but also education, health, sanitation and infrastructure, add complexity to resolving environmental challenges. Working poverty and poor job quality still affect hundreds of millions of people around the world, while the widespread lack of basic social protection increases the vulnerability of many to environmental and economic shocks.

In the transition to environmentally sustainable economies and societies, the world of work can benefit from some major opportunities. These include (1) Net gains in total employment from realizing the potential to create significant numbers of additional decent jobs through investments into environmentally sustainable production, consumption and management of natural resources; (2) Improvements in job quality and incomes on a large scale from more productive processes, as well as greener products and services in sectors like agriculture, construction, recycling and tourism; and (3) Social inclusion through improved access to affordable, environmentally sustainable energy and payments for environmental services, for instance, which are of particular relevance to women and residents in rural areas. Some sectors stand out in harnessing these

opportunities and these sectors represent the areas for deepening greater outreach, scale and impact of successful initiatives such as ZGJP.

Agriculture

According to the ILO Global Employment Trends (2012), even though its share has fallen over the last two decades, agriculture is the largest employer in the world, with a global workforce of over 1 billion – about one in every three workers. With agricultural incomes growing more slowly than GDP (World Bank, 2008), it is also the sector with the highest concentration of poor people, two thirds of whom live in rural areas. Yet agriculture is one of the largest emitters of greenhouse gases and, very probably, the sector most vulnerable to climate change (IPCC, 2007). Moreover according to the OECD

(2011), it is the largest user (70 per cent), and a significant polluter, of water and a key cause of land degradation and loss of biodiversity. The evidence suggests that these environmental challenges can be met if there is a strong drive to train and support farmers to adopt productive farming methods with a low environmental impact. Especially among small-scale farmers in developing countries, policy packages for sustainable agriculture including skills upgrading, enterprise and value-chain development, organization and investments in social protection and infrastructure can yield major increases in output and incomes (International Labour Conference, 2013). Employment guarantee schemes, as part of national social protection floors – in line with the ILO Social Protection Floors Recommendation, 2010 (No. 202) – can also play a major role in sheltering rural communities from crop failures, injecting finance into cash-starved rural areas and creating productive infrastructure.

Waste Management and Recycling

In a world faced with escalating volumes of often hazardous waste, increased emphasis on recycling and waste management will be necessary to reduce pressure on natural resources and safeguard the environment. The waste management and recycling industry is already a significant employer: an estimated 4 million workers are employed in the formal sector with another 15–20 million estimated to be working as informal waste-pickers in developing countries (Bonner, 2008). Although little firm data exists, it is thought that a large percentage of workers involved in recycling and waste management are women, often working as waste-pickers at the lower end of the informal economy.

Increased recycling can lead to significant gains in energy and employment. Specifically, recycling saves large amounts of energy when compared with the mining and processing of raw materials. Recycling aluminium, for example, offers savings of 95 per cent; the rates for steel (74 per cent) and paper (65 per cent) are also substantial (Bureau of International Recycling, 2009). Recycling can also lead to net gains in employment quantity and quality in comparison to traditional jobs in landfill or incineration of waste. US assessments have found that sorting and processing of recyclables sustains ten times as many jobs per tonne as landfill or incineration, a finding confirmed by a report from the United Kingdom. A study in India puts the recycling advantage as high as 24:1. A European Environment Agency study also concluded that recycling creates more jobs at higher incomes than landfilling or incinerating waste. The employment potential is particularly strong in countries whose recycling rates are currently low, as is the case in most developing countries. Recycling will only become a truly green activity with job formalization. Examples from Brazil, Colombia and Sri Lanka, where waste-pickers have been organized into cooperatives and established enterprises, demonstrate how formalization can create significant opportunities for social inclusion and improved working conditions, safety and health, and earnings (German Technical Cooperation Agency, 2008); (Bonner, 2009).

Clean Sustainable Energy

Some 1.3 billion people in developing countries have no access to clean sustainable energy at all and 2.7 billion do not have clean and safe cooking facilities. On current trends of extending access, some 15 per cent of the world population would still be without



access in 2030. The majority of them would be living in sub-Saharan Africa. Greater efforts to promote income security and affordable renewable energy can make a major contribution to overcoming energy poverty and the lack of access to energy. Moreover, they can also create badly needed employment and income opportunities in the production of energy and even more so through the use of that energy.

According to UNEP (2010), the Tunisia's Solar Programme (PROSOL) is another encouraging success story, providing more than 50,000 families with solar hot water services to date. Over 1,000 enterprises have entered the solar installation business, creating substantial numbers of jobs. The early success convinced the Government to nearly double the target area for installed surface to 750,000 square meters in 2010–14. Energy access can also be enhanced through mobilizing social organizations such as cooperatives, as examples from a growing number of countries show, including Argentina, Cambodia, Germany, India, Mexico, and with a long tradition the United States.

Building and Construction Sector

In the building and construction sector, there are at least 110 million formal sector construction workers employed worldwide, and an unknown number of labourers working in informal jobs with generally poor working conditions. Even jobs in the formal construction sector are among the most hazardous forms of employment in terms of work accidents and occupational diseases. Jobs are also often temporary, with complex subcontracting arrangements. In most countries, a large part of the workforce has low skill levels and a high proportion of migrant workers. And in terms of sustainable economies and societies for all, the building and construction sector has the highest potential for improving energy efficiency and reducing emissions in both industrialized and developing countries. Buildings are the single largest consumer of energy and the largest emitter of greenhouse gases. Building on the experiences of the Zambia Green Jobs Programme a lot more can still be done.

The International Energy Agency's World Energy

Outlook (2009), for example, estimates that a US\$2.5 trillion additional investment in green buildings globally between 2010 and 2030 would yield US\$5 trillion in energy savings over the life of the investment. The large-scale renovation programme for energy efficiency in Germany, for example, has mobilized investments of almost €100 billion since 2006. It directly maintains as many as 300,000 jobs in the building industry. The programme is also notable for the fact that it was initiated jointly by trade unions, employers and non-governmental organizations (NGOs) – a cooperative model rooted in social dialogue. A US study found that energy efficiency retrofits of the pre-1980 building stock could reduce electricity use by 30 per cent and create more than 3.3 million cumulative job years of employment. A longer term (2011–50) assessment of the EU's Energy Performance of Buildings Directive impacts concluded that an accelerated pace of renovation could generate an average 0.5 million to 1.1 million jobs per annum (ILC, 2013). In Gaza an ILO (2012) study on reconstruction works and low-cost housing showed that significant economic, employment and environmental gains can be made by using compressed earth blocks and other recycled building material as an alternative to cement. In Zambia, ILO UNEP (2016) sustainability assessments of green building demonstrations with multinational investors and developers of green affordable housing also confirm the same findings.

Energy- and resource-efficient social housing has the potential to improve living standards and shield poor households from rising energy prices, while avoiding costly investments in power-generation capacity. This is demonstrated by the Brazilian programme Minha Casa, Minha Vida (My Home, My Life) for low-income families, which aims to equip 300,000 houses with solar water-heaters, saving families 40 per cent on their energy bills. The programme is also expected to create 30,000 additional skilled jobs related to the manufacturing and installation of the equipment. Energy access can also have wider employment and income benefits (International Labour Conference, 2013). Construction of energy- and resource-efficient buildings requires competent enterprises and skilled workers. Targeted investments in skills upgrading

and certification of building firms, formalization (notably of SMEs, which dominate the sector) and improvements in working conditions to retain qualified workers are essential components of a successful strategy. Investments in retrofitting of buildings can have a strong immediate effect on employment generation in the construction sector and among its suppliers. For emerging and developing countries, leapfrogging directly to high-performance new buildings will avoid a legacy of high energy, water and resource consumption which otherwise will endure for decades.

However there are some challenges to creating decent work and increasing social inclusion in environmentally sustainable development which can basically be grouped in three areas:

1. Economic restructuring, resulting in the displacement of workers and possible job losses and job creation attributable to the greening of enterprises and workplaces;
2. The need for enterprises, workplaces and communities to adapt to climate change to avoid loss of assets and livelihoods and involuntary migration; and
3. Adverse effects on the incomes of poor households from higher energy and commodity prices.

Resource-intensive industries in industrialized countries and some emerging economies are most directly concerned, but employment in these industries is actually rather limited, at 10–12 per cent of the total workforce in most countries. This far, greening has been a relatively minor factor in employment losses. In reality, the principal causes of declining employment in industries such as mining, fossil fuel-based energy or iron and steel are the increasing automation and rising labour productivity that have been occurring over several decades. Although the environmental and social challenges may appear daunting, addressing them together can lead to positive outcomes and create powerful synergies for development. Positive outcomes for employment, decent work and sustainable enterprises from an environmentally sustainable

economy require country-specific policy mixes.

Country specific and coherent policies for inclusive green growth and job creation

Macroeconomic fiscal and monetary policies can redirect demand and investment by enterprises, consumers and investors through price signals and incentives created by taxes, price guarantees, subsidies, regulation, finance and public investment. Eco-taxes which raise the price of energy consumption and pollution and reduce the cost of labour, coupled with clear and stable targets and timelines for greening and emission reductions, can be a powerful driver of green investment and net job creation.

Sectoral policies are widely employed, generally relying on environmental regulations, financial incentives and mandates, for example the share of renewable energy in a power supply, average energy consumption thresholds for cars or biodiversity set-asides in agriculture and forestry. Most public investment for environmental sustainability is aimed at key sectors such as energy, buildings, transport, land and water management. Numerous countries have successfully used industrial policy to support greening of the economy, including Brazil (ethanol and biodiesel), China (all renewables), Denmark (wind), Germany (green buildings among others), Japan (green transport) and Spain (wind and solar).

Social and labour policies for a green transition ideally combine social protection, employment, skills development and active and passive labour market policies. Social protection measures such as Ethiopia's Productive Safety Net Programme and India's Mahatma Gandhi National Rural Employment Guarantee Scheme strengthen the adaptive capacities of the poor and provide opportunities to adopt sustainable practices. Social protection also affords poor and relocated workers income security, the possibility for skills acquisition and increased mobility. Remuneration of environmental services can link targeted access to employment opportunities to major investments in productive infrastructure.

Concluding Remarks from the ILO and Programme Steering Committee

In a global context characterized by decelerating growth in the Eurozone and in the Chinese economy with subsequent decreasing commodity prices and a domestic situation marked by restrained access to energy and capital and a weakening currency, some of the most critical challenges that the Zambian Government faces are to ensure a sustainable economic growth that results in decent job creation and greater provision of social safety nets.

The importance of decent work in achieving sustainable development is highlighted by Sustainable Development Goal 8 of the recently adopted Agenda 2030. Goal 8 aims to “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. In this regard, the Zambian government sustainable industrial policies that are inclusive and promote green growth and promote industries with potential for job creation. The focus on green ensures that the country has “inclusive development that makes sustainable and equitable use of Zambia’s natural resources within ecological limits”.

Zambia’s industrial sector is dominated by micro, small, and medium enterprises (MSMEs) with often restricted access to affordable credit and markets. Improving the growth potential of these entrepreneurs through market development trainings and strengthening linkages between MSMEs and large formal enterprises have proven to have a positive impact on job creation and poverty reduction.

The construction industry has been identified as having a wide scope for contributing to the national development. This industry has a significant role to play in the economy of any nation. Every piece of infrastructure or real estate development created within and around our neighbourhood is created by segments of this industry and a multiply effect on economic development.

Supported by the Government of Finland, the Government of Zambia and the UN system is delighted to be working together with the private sector through the Zambia Green Jobs Programme. With its emphasis on sustainable enterprise development and decent green job creation it addresses national priorities and global commitments of sustainable development. The excellent results achieved so far, and confirmed by the independent mid-term evaluation, reflect a high degree of public and private sector ownership and market uptake.

We look forward to another year of progress.



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ZGJP Steering Committee and programme beneficiaries in Kalulushi.

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