

Bilateral report

United Nations Industrial Development Organization (UNIDO)

1 January - 31 December 2018











Part I: ODA countries and global activities (MPTF project number: 105893)

a) Global level

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national
and global level

Key achievements in 2018

UNIDO and UN Environment in cooperation with UNITAR are developing a comprehensive capacity building online course on Green Industrialization Policy based upon the products, which were developed under the PAGE global outcome. The overarching objective is to strengthen the capacity of current and future policymakers, advisors, and green economy professionals, to use Green Industrialization Policy as an instrument to direct and accelerate transformative change towards a green economy pathway.

Key achievements:

- Course content and course evaluation framework have been developed;
- Current policy makers, future policy makers and civil society organization have been identified as a targeted audience;
- A learning needs assessment format and interview question have been developed;
- Institutional network and key experts have been identified in order to ensure uptake, wide application, and sustainability of the capacity building material.

Outcome 4:Countries have improved their knowledge base for advancing IGE	
Key achievements in	Not applicable.
2018	

b) Argentina

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into
SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements	Not applicable.
in 2018	

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

national IGE priorities.	
Key achievements in 2018	No activities in 2018.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

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Key achievements	Not applicable.

in 2018		
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c) Brazil (Mato Grosso state)

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

In Mato Grosso, Brazil, the UNIDO-PAGE activities target the energy sector, jointly with UNEP, through the provision of technical support to the State Plan on Renewable Energy. At the initial stage, the focus was to assess the energy potentials of agriculture waste, solar energy and biomass.

As a first step, Brazilian stakeholders from the University of Cuiabá attended a three-day training course organised from 23-25 July 2018 by PAGE in collaboration with the Austrian Energy Agency. This was an opportunity to support the Energy Strategy through the identification and the utilization of opportunities in different sectors of sustainable energy technology, especially, in the areas of waste-to-heat technologies and micro-grid management.

The long-term strategy will focus on the promotion of new business models and energy technologies, such as biogas, as well as the rehabilitation of natural resources, which can be supported with funding from the framework of the GEF biogas project in Brazil. In addition, a meeting on 26 July with UNIDO staff at Headquarters was organised to discuss possible collaborations in fields such as waste to energy, micro-grid and renewable energy at large, decentralised energy generation, waste-heat recovery, and energy management.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

d) Burkina Faso

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

In Burkina Faso, UNIDO developed the Green Industrial Policy based on the findings from the green industry assessment carried out in 2015 by UNIDO-PAGE with the support of the national institute called Group for Research and Applied Analysis for Development (GRAAD). The policy document collects baseline information on the industries and initiates discussion on various policy options and the trade-offs of adopting those instruments to enhance green industrialization in the country.

Short- and long- term measures were included to enable the transition to green economy through industry, which contribute to the sustainability of greening efforts.

Consultations with public, administrations and authorities at the highest level as well as with industrialists, institutional stakeholders, and the wider population with regard to opportunities and challenges of green industrial policies were done to push the national green agenda in the right direction. A validation workshop was held on 20 September, 2018including stakeholders from various ministries, private sector, academic institutions and the civil society. Furthermore, to celebrate the Africa Industrialisation Day on 6 December 2018, the Ministry of Trade, Industry and Handicraft in collaboration with UNIDO organised another workshop on the new Green Industrial Policy.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

e) China (Jiangsu province)

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

The UNIDO workstream supported the country to build a comprehensive indicator framework: the China Green Industry Progress (GIPro) index. This initiative covers economic, environmental, and social aspects of the green transition progress of industries for a systematic evaluation. The index has been built for 18 Chinese provinces including Jiangsu province to assess the progress of industries in terms of green industrialization. In that context, UNIDO organized an expert group

meeting "Inclusive and Sustainable Industrial Development (ISID) and Green Industry Indices" on 23-24 May 2018 within the framework of PAGE-China and UNIDO's Green Industry Programme and the Green Industry Platform - China Chapter. More than 20 leading experts specialized in the construction of composite indices from international organizations, including the UN PAGE Agencies, discussed the green industry initiatives and assessment of Chinese green industrialization. The report is underway to be published as a PAGE publication.

As a follow-up, a pilot study on industrial parks was commissioned by UNIDO to evaluate the performance of 4 industrial parks in each of the four Chinese designated categories - eco-industrial, circular economy, low carbon, and green industry parks in the Jiangsu province against the UNIDO/World Bank/GIZ International Framework of Eco-Industrial Parks (EIP). The objective of this assessment is to generate insights into the applicability of the International Framework to the IPs in Jiangsu province, give policy recommendations for IPs in Jiangsu to improve their sustainability performance and for the international organizations to adapt the International Framework for EIPs for specific country conditions.

The study report has been prepared in English. The tentative plan is to publish the report after the PAGE event in China in April 2019.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

UNIDO joined in the 2.5 days of PAGE Jiangsu Event on Green Industrial Parks, Organized by PAGE UN agencies, PRCEE of China's Ministry of Ecology and Environment (MEE) and Jiangsu International Environmental Development Centre. Workshop brought together green industrial park policymakers, park administrators, business representatives, scholars and NGOs from Jiangsu and other provinces to share and discuss good practices and lessons learnt in greening the industrial parks. UNIDO presented on "An International framework on Ecoindustrial parks: comparative analysis" and identified potential industrial parks for conducting pilot studies in China.

f) Ghana

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements

The objective of the workstream is to formulate a national industrial resource

in 2018

efficiency policy and program, using lessons learned from demonstration projects in the oil palm and steel sectors. The proposed policy and program will be supported by the results of demonstrations projects in the steel and palm oil sectors which should show significant resource (energy, water and materials) savings. The proposed policy and program will also draw on the policy and programs in Tunisia and South Africa.

So far, UNIDO organized the training on the implementation of Energy Management Systems (EnMS) on 16-17 April 2018 within identified energy-intensive industries. An awareness raising workshop was also conducted on18 April, 2018 on power factor correction, with the aim to sensitize energy intensive industries around strategies to improve power factor and the effect this would have on the national electrical supply.

A Resource Efficiency and Cleaner Production (RECP) awareness raising workshop was conducted for the palm oil industry in the second half of the year to solicit interest of mills in participating in the demonstration project and to introduce the optimization and energy use in palm oil production. The participants included palm oil manufacturers (8), Oil Palm Development Association of Ghana (OPDAG), Ministry of Trade and Industry and the Energy Commission.

Following a review and evaluation of four selected steel industries, Rider Steel (based in Tema) was selected as a demonstration plant. Site visits have been undertaken to the steel plant that included plant management interviews, non-invasive inspections, measurement, monitoring and the collection and logging of selected data. The required data needs have been discussed with the companies. The consultants encountered difficulties in collecting the required data, which has postponed the preparation of a resource efficiency scoping assessment to 2019. The assessment will highlight the potential for optimization and savings within the industry and will recommend the implementation of no- and low cost resource efficiency measures.

Similarly, a series of oil palm mills are under review of which one or two will be selected as demonstration plants, with consultants writing a final report. PAGE has also contributed to and facilitated the training of mining sector engineers and business managers on ISO 50001 certification. Valuable EnMS implementation lessons from the Ghanaian mining sector can be disseminated in support of the same development in steel and palm oil sector.

These reports and specifically lessons learnt and barriers encountered during the assessment will be discussed with the national stakeholders to provide input to a series of industry-specific national industrial resource efficiency policies which will be part of a proposed national programme to be adopted by the government. Based on the findings of the demonstration, a national resource efficiency policy will be developed under the workplan 2018-2019. Stronger collaboration with the

relevant MDAs will be built, especially with high level political support as this workstream fits into the government's newest industrialization policy: One District, One Factory initiative.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

As part of the demonstration project in Palm oil sector, UNIDO organized the training on the implementation of Energy Management Systems (EnMS) on 16-17 April 2018 within identified energy-intensive industries. The training participants included representatives from the steel sector (5), palm oil sector (2), as well as governmental and non-profit agencies (Energy Commission, EPA, GNCPC, Ministry of Trade and Industry, the NGO Solidaridad).

An awareness raising workshop was also conducted on18 April, 2018 on power factor correction, with the aim to sensitize energy intensive industries around strategies to improve power factor and the effect this would have on the national electrical supply.

g) Guyana

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements		
in 2018		

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

A Green Industry and Trade Assessment (GITA) was conducted and presented by a UNIDO expert at a verification workshop in December 2018. The Government will undertake a final peer review of the Green State Development Strategy, which will include excerpts from the GITA, prior to the Cabinet approval in the first half of 2019.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

h) India

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.	
Key achievements in 2018	Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.	
Key achievements in 2018	Not applicable.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.	
Key achievements in 2018	Not applicable.

i) Indonesia

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.		
Key achie in 2018	vements	UNIDO attended the inception meeting in Jakarta with other UN agencies.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.	
Key achievements in 2018	Not applicable.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.	
Key achievements in 2018	Not applicable.

j) Kyrgyzstan

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.		
Key achievements	Not applicable.	

in 2018	
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Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

The PAGE Green Economy Week and Forum took place from 15-19 October 2018 in Kyrgyz Republic. The discussions focused on how to put the transition to a greener economy high on political and regulatory agendas. UNIDO participated in the event to validate the national green economy strategy for which UNIDO developed a green industry chapter and priority action plan to support the government in taking their green agenda forward. The green industry chapter and action plan were validated in the Green Economy Forum and in a workshop titled Green Industry: Policy and Practice. The forum and workshop were well attended by participants from private sector, academia and government, as well as representatives from other UN organizations in Kyrgyzstan. In addition, UNIDO is completing a Green Industry and Trade Assessment for Kyrgyzstan to support the government's ongoing development of the industrialization strategy.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

k) Mauritius

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

UNIDO participated in the PAGE Green Economy Forum, which took place from 09-11 May, 2018 in Mauritius. The forum focused on the environmental concerns and how to put the transition to greener economies high on the political and regulatory agendas. UNIDO held a session on "Promoting Green Industry in Mauritius" attended by public sector representatives (Ministries of Industry, Environment, Finance, local government authorities, and SMEs) and several representatives of the private sector who participated in the industrial waste assessment carried out by UNIDO on behalf of PAGE, as well as private sector associations.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

A bilateral meeting was held on 8 June with the Permanent Secretary and staff from the Industry Directorate of the Ministry of Industry, Commerce and Consumer Protection to discuss government priorities under UNIDO PAGE workstream. The Ministry of Industry, Commerce and Consumer Protection, and the Ministry of Social Security, National Solidarity, and Environment and

Sustainable Development are currently carrying out a consultation to identify priority focus areas and mapping of the follow-up activities from the study on "Industrial Waste Assessment: Opportunities for Industrial Symbiosis" published under UNIDO PAGE.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

l) Mongolia

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

UNIDO presented the results of the study conducted within the PAGE framework to assess the baseline situation of end-of-life vehicles (ELV) processing in Mongolia during a stakeholders' meeting held on 13 March 2018 in Mongolia. The purpose of the study was to provide policy advice that will be incorporated into national strategies and an action plan for waste management of end-of-life vehicles.

The meeting also provided a platform for UNIDO to present a global perspective on ELV management considering the legislations of other countries, technological opportunities and challenges of this sector. The study was well received by the main stakeholder, the Ministry of Road and Transport, and other relevant groups including automotive recyclers, the academia and NGOs. In order to facilitate wider visibility, both the reports, Industrial Waste Inventory in Mongolia and ELV have been translated into Mongolian.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

m) Peru

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements	Not applicable
in 2018	

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

UNIDO has developed a national Green Industrial Policy for Peru shedding light on the inclusion of circular economy principles in the country's existing industry condition and new initiatives. Adopting an integrated approach in preparation of strategic green industrial policy, UNIDO organized workshops and trainings to collect input from the key actors, stakeholders, and raise awareness on the design and implementation of green industrial policies. Government actions have been enhanced to integrate these policies as a national strategy for upgrading the industrial environmental conditions.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

n) Senegal

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements
in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

UNIDO responded to the President of Senegal's call for a national consultation on oil and gas production. In addition, UNIDO has provided policy advice on developing a gender-responsive Green Industry Policy. UNIDO is still working on the implementation of the recommendations derived from the High-level Roundtable on Green Industry in Senegal.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements		
in 2018		

o) South Africa

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

UNIDO, in collaboration with the national institute of Trade & Industrial Policy Strategies (TIPS), has developed an Action Plan and Implementation Strategy for the Development of Biocomposites in South Africa, building on the earlier GEITA report undertaken in 2016-2017. In line with the findings of the initial study, the focus of this assessment will be on biopolymers. It aims, first, to strengthen the justification for the future development of the biocomposite industry and, second, to formulate an action plan and implementation strategy to seize the opportunities in the area of biocomposites in South Africa, such as a relatively advanced technological status, a wide demand base, and strong complementarities with pre-existing South African production capacity.

The first draft was presented on 16 July, 2018 to a task force, which oversees the implementation and completion of this activity. Members of the task force, including government partners and representatives from DEA, the DTI, and PAGE agencies, welcomed the initial results and suggestions. The report validation workshop with the participation of national policymakers, representatives of the civil society and the private sector, NGOs and the academia was held on 22 August, 2018 to disseminate the findings and recommendations of the final draft and to foster future partnerships/collaboration between UNIDO-PAGE and the local partners.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Part II: non-ODA countries (MPTF project number: 108027)

a) Barbados

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

The Government of Barbados arranged a PAGE re-inception meeting from November 6-9 2018 to strengthen the country's commitment to green economy transition. UNIDO participated in the re-inception workshop with other UN agencies and the government to identify priority intervention areas. A stocktaking study has been initiated as a follow-up to document to the Green and Blue Economic Policy and Programme Best Practices in Barbados. In consultation with government, PAGE partners have planned to conduct a study on the Labour Market Policy Measures to enhance the Green and Blue Economy job opportunities. Piloting assessment on Local Climate Resilient and Sustainable Agro-Tourism based Livelihood Opportunities in National Park Systems and Ecologically Sensitive Areas is under consideration.

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national and global level.

Key achievements in 2018

Not applicable.

b) Uruguay

Outcome 1: Countries have reinforced and integrated inclusive green economy (IGE) goals targets into SDG aligned national economic and development planning through multi-stakeholder collaboration.

Key achievements in 2018

Not applicable.

Outcome 2: Countries are implementing evidence based sectoral and thematic reforms in line with national IGE priorities.

Key achievements in 2018

A training course was developed for the analysis of international markets for waste valued in the context of global value chains. This training course took place at the Training Centre of AECID (Agencia Española de Cooperación Internacional y Desarrollo) from 8 to 18 May 2018 with 15 participants including government officials, academics and policy makers. The course focused on the country's

general dynamics of industrial waste as well as on UNIDO's approach to identifying waste valorisation opportunities, value capture and upgrading in the context of global value chains. The information generated by the workshop aims to support the country's efforts moving ahead with the pack on circular economy agenda. The technical capacity created will be used to replicate the methodology with other sectors

In August 2018, UNIDO-PAGE also coordinated the elaboration of an online course on cleaner production by the Cleaner Production Centre of the University of Montevideo.

During last quarter of 2018, the process of elaboration of a software solution to improve the energy efficiency of MSMEs was supported by UNIDO-PAGE, which includes considerations on environmental management and labour formalisation. This initiative is aimed to support the governments' efforts in fighting informal payments and in advancing financial inclusion. PAGE coordinated with the Energy Efficiency Programme of the National Directorate of Energy, the elaboration of this tool.

As a follow up to this activity, a later phase of the programme will be implemented, once this pilot phase has been completed in two sites. The distribution of this calculation solution will then be planned at national level, with the corresponding training and/or the provision of electronic devices where the tools can be operated (mobile phone, tablet or computer).

The current work plan (2018-2019) supports the country in moving towards a more circular economy by creating market and management opportunities for e-waste as well as by promoting green start-up initiatives (design and implementation of a green start-up programme).

Outcome 3: Individual, institutional and planning capacities for IGE action strengthened at the national	
and global level.	

Key achievements	
in 2018	