



International
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Promoting green jobs for youth through national employment policies and programmes

Introduction

According to ILO estimates, 172 million people worldwide were unemployed in 2018 and, though the global unemployment rate should remain at roughly the same level (5.0 per cent) in 2019 and 2020, the number of people unemployed is projected to increase as a result of the expanding labour force. Among other vulnerable groups, young people¹ continue to be much less likely to be in employment. Up to 2030, about 25 million young persons aged 15–29 are expected to enter the labour force searching for employment.

Where will new jobs be created? One possible source of new jobs is the expanding green economy. Many countries are considering green growth scenarios to achieve reductions of greenhouse gas emissions consistent with the goals set at the Paris 2015 Climate Agreement. The transition to low-carbon, climate resilient economies and societies has far-reaching implications for the labour market and can generate – if well managed – job opportunities, including for young people. As an example, the projections underlying the ILO World Economic and Social Outlook 2018 “Greening with Jobs” estimated the net employment gain from a transition to clean and renewable energy at some 18 million jobs globally by 2030.

¹ For the purposes of this paper, the terms “youth” and “young people” are used interchangeably to characterize young persons from 15 to 24 years inclusive, unless otherwise specified.

In order to have a positive overall effect on employment levels, Governments would need to embrace a comprehensive policy approach that, on the one hand, stimulates investment in green sectors and, on the other, enhances the skills levels and employability of workers. So, what are the specific sectors with high employment potential? What can national Governments and social partners do to enable green investments in such sectors and to the benefit of young jobs seekers? How can skills development strategies be implemented so that young people are better prepared for green jobs? What kind of entrepreneurship programmes for creating green businesses can be undertaken on a sufficiently large scale to make a significant contribution for youth employment?

This Technical Note elaborates on national employment policies as viable entry points to address the questions above, for the purpose of guiding policy makers and programme managers in designing effective strategies for green jobs for youth. The note attempts to link conceptual and policy frameworks with promotional measures on the ground. It considers relevant approaches, instruments, and examples of good practice, by using the employment policy framework as a compass.

1. The concept of “green jobs” and its relevance to youth

Key takeaways:

- *Green jobs are decent jobs that contribute to environmental sustainability, a societal goal largely endorsed by young people.*
- *Climate change and related mitigation and adaptation measures affect labour markets and occupations in different ways, both negatively and positively. Green transitions can offer new job opportunities to young people.*
- *Early anticipation of the changes and the implications for skills development can greatly benefit youth employment.*

The transition to greener economies² has far-reaching implications for the labour market. Certain jobs may disappear and new jobs will be created. Many workers will need to reskill and adopt different work practices entailing the use of new technologies that help improve resource efficiency and reduce wastage. Young workers and youth still enrolled in education would be more inclined to acquire new skills and competencies required by employers in the green economy. They also tend to have stronger aspirations for work that benefits society as a whole, in this case by contributing to environmental sustainability.

In this context, the meaning of “**green jobs**” can be understood in two ways: i) employment that contributes to produce an environmentally sustainable *output* or ii) employment that contributes to making the production *process* more environmentally friendly. Jobs in organic agriculture, waste recycling or green buildings are examples of the first category. Workers involved in cleaner production

² The 2015 ILO’s Guidelines for a Just Transition to environmentally sustainable economies and societies offer a relevant set of policy recommendations that can help Governments and social partners to promote opportunities for decent work when designing national low-carbon strategies.

processes in industry or contributing to lowering water and electricity consumption in hotels are examples of the second category of green jobs. For the ILO, the dimension of decent work³ is the distinguishing feature that defines environmentally sound jobs as “green jobs”. In other terms, green jobs are decent jobs.

In fact, the changes in the labour market due to the greening of economies have both quantitative and qualitative effects on jobs. Anticipating and managing these changes is particularly relevant for young job seekers and youth still participating in education and training (see [Table 1](#)).

Table 1: Current and anticipated effects of policies addressing climate change and environmental sustainability

Effect	Example	Expected scale	Opportunities for youth
New jobs will be created (in existing and new occupations)	Solar panel technicians, organic farmers, recycling managers, staff in eco-tourism resorts, workers in natural resource conservation and restoration, environmental advisers, workers in bicycle shops	Modest	Many
Certain jobs may be eliminated	Coal miners, workers in the packaging industry that adopt water- and material-saving technologies	Small	Few are affected
Jobs will be substituted (occupations change)	Jobs in transport systems moving to rail, electric cars and shared vehicles, waste management jobs in landfilling/dump sites moving to incineration and recycling, jobs in quarries for construction using new building materials and the reuse of leftovers and waste	Modest	Varies per sector; often low-skills jobs
Most jobs will be transformed (occupational profiles change)	Operators and managers adopting practices and technologies that reduce environmental impacts or improve environmental quality across a range of sector (e.g. agriculture, construction); workers in all sectors where energy and resource efficiency is introduced (cleaner production in manufacturing, retail services without bags and packaging, bottling companies changing to new materials and products); staff in financial institutions adopting sustainable investment strategies	Large	Many, especially if prior education and training already includes new green profiles

Source: Elaborated from ILO (2017)

³ In ILO terms, “Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”

2. National employment policies that promote green jobs for youth

Key takeaways:

- *National Employment Policies (NEP) are among the viable entry points to promote green jobs.*
- *Green jobs for youth should be consistently and explicitly considered and promoted in each step of the NEP policy cycle.*
- *All elements of a NEP framework should be brought to play in an integrated manner in order to optimise green jobs outcomes.*
- *NEPs should foresee specific initiatives to stimulate demand for green jobs and to improve supply of employable youth in green jobs, including via modernised employment services.*

To optimize the employment gains from the transition to a greener economy, and youth labour market outcomes in particular, supporting measures are required. These relate to macroeconomic, sectoral, investment, trade and enterprise development policies to promote job-rich green growth, as well as to education, training and labour market policies that ensure youth can acquire the right skills and competencies and are appropriately accompanied to take up the green jobs on offer.

Spanning all these dimensions, a **National Employment Policy (NEP) framework** (see [Box 1](#)) can be instrumental in this respect. Concrete results can be pursued through the national dialogue on the NEP or components of it, but also through appropriate planning or programmes and projects implemented to achieve policy objectives.

Box 1. Understanding the elements of national employment policies

- **Employment Policy:** a vision and a concerted and coherent framework linking all the employment interventions and stakeholders in a given country.
- **Employment Action Plan or Strategy:** a course of action to implement the policy, including outcomes and outputs, targets and indicators, a work plan with clear distribution of responsibilities and a detailed budget.
- **Programmes:** tools for the implementation of the policy, usually built around the policy's objectives.
- **Projects:** donor-funded interventions that should be aligned with the policy's outcomes.

Source: ILO, 2012a.

Since 2012, Governments⁴ have increasingly considered climate change and/or environmental sustainability in the formulation and implementation of their national employment policies (NEPs). More countries have meanwhile adopted an integrated approach, among others in the context of the

⁴ 2012 marks the year of the Rio+20 Conference on Sustainable Development, where the Future We Want document was adopted which includes a call for the promotion of a green economy and knowledge sharing on green jobs.

Partnership for Action on Green Economy (PAGE)⁵. In Peru, for example, the current review of the national employment policy includes a focus on green jobs as well as on youth. A National Plan for Green Jobs is foreseen to underpin the policy, with concrete measures proposed in distinct areas. A series of capacity building workshops for Government staff of the Ministry of Labour and Employment Promotion has significantly enhanced the understanding of ways to promote green jobs, including through regional youth employment initiatives. In Senegal, PAGE helped to formulate a National Strategy on Green Jobs, which has been integrated into the new *National Employment Policy*, ensuring policy coherence and synergy among actors in the fields of environment and the world of work.

Like for any other policy, a national employment policy can be understood as a series of subsequent steps, or in other terms as a **policy cycle** from situational analysis to ex-post evaluation (ILO, 2012a). Table 2 hereunder unpacks the policy cycle and suggests youth-related issues and questions to be addressed at each stage.

Table 2. Employment policy cycle and considerations for including a focus on green jobs for youth

Policy stage	Green perspective	Youth relevance
I. Preparation	<p>Address the following questions:</p> <ul style="list-style-type: none"> - What is the current governmental policy with respect to climate change policy and/or environmental sustainability? - Who are the key policy-makers involved? - Who are the key business leaders and workers' representatives involved? - Who are the stakeholders beyond social partners, esp. in the environmental field? 	<ul style="list-style-type: none"> - What is the youth development policy? - To what extent are policy makers and other stakeholders prioritizing youth? - Are youth-led organizations involved?
II. Formulation	<ul style="list-style-type: none"> - Ensure linkages with environment-related departments, institutions and stakeholders - Mobilize high-level expertise to highlight repercussions on employment of both neglect and action on climate change - Include climate change and/or environmental sustainability in the problem statement and the policy goal - Conduct an assessment of current and potential negative and positive employment impact of climate change and responsive policies across economic sectors- Conduct a subsequent assessment of the current and expected changes in related occupational profiles and qualifications 	<ul style="list-style-type: none"> - Identify and involve young leaders/managers - Ensure a focus on youth - Does the statement refer to youth? - Ensure disaggregation by age and request/commission a dedicated report on youth employment in green sectors (current and anticipated jobs and skills) - Identify and link with key stakeholders that advocate for youth

⁵ PAGE is a global initiative by five UN agencies to accelerate the transition to a green economy through national policy reform, sector strategies and capacity building. Supported by a multi-donor trust fund it provides technical assistance to a growing number of countries in Asia (6), Central Europe (1), Africa (6) and Latin America (4) (See: www.UN-PAGE.org)

	<ul style="list-style-type: none"> - Invite key environment-related stakeholders to join the employment policy steering committee 	<p>employment, including youth-led organisations</p>
III. Planning ⁶ and budgeting	<ul style="list-style-type: none"> - Explain green jobs concept, definition, prevalence and potential - Propose a range of policy options, intended outcomes and outputs - Propose relevant indicators to ensure measurement and reporting later on - Organize a dedicated tripartite workshop for orientation and prioritization with sharing of best practices (country/sector-wise) - Propose finance options for green investment promotion, fiscal measures and subsidies for green initiatives - Suggest links with budget of other Ministries, such as environment, agriculture, education, etc. and propose (co-) financing options - Identify and link with climate change related funding mechanism at national and global level, such as Green Climate Fund 	<ul style="list-style-type: none"> - Include focus on youth - Prioritize those with the highest potential for youth - Ensure disaggregation by age - Sensitize governments and social partners to prioritize measures for youth - Ensure measure for youth employment and youth entrepreneurship - Link with Ministry responsible for youth development and suggest joint financing
IV. Implementation	<ul style="list-style-type: none"> - Propose members with green expertise for a steering or coordination committee - Ensure links and synergies with climate/green frameworks for coordination - Undertake pilot projects For potential scale up and document effectively results and learning - Create partnerships for joint initiatives and uptake by other stakeholders - Consider a communication campaign for understanding and adoption of the green approach 	<ul style="list-style-type: none"> - Propose youth leaders - Link with policy frameworks and programmes on youth development, education and training - Ensure inclusion of youth project - Link up with youth leaders - Target youth, especially by using social media
V. Monitoring and evaluation	<ul style="list-style-type: none"> - Ensure dedicated reporting - Publicize results widely - Convene seminar or workshop to discuss results and adjust approach 	<ul style="list-style-type: none"> - Ensure disaggregation by age - Mobilize and use youth networks - Ensure participation of youth

Source: Elaborated from ILO (2017)

⁶ See Table 3 for details of policy options

Taking from an ILO's comprehensive overview, [Table 3](#) clusters the main components of a deliberate policy to enhance employment outcomes, and elaborates on the relevance of such measures to the promotion of green jobs for youth.

Table 3. Employment policy instruments and their relevance for green jobs for youth

<i>Policy measure (selected)</i>	<i>Relevance to green jobs for youth (illustrative examples)</i>
I. Demand-side measures	
1. Pro-employment macroeconomic policies	
Monetary policy – quantitative easing, credit expansion	
Fiscal policy – stimulus packages; strategies to create fiscal space	Support to green start-ups
Investment policies and improving the investment climate, including investment in infrastructure, in public services, in green production and R&D	Targeting green investments in sectors and regions/localities with high share of youth unemployment; Linking green R&D with tertiary educational institutions (incl. for green start-ups and incubators)
2. Sectoral policies: agriculture, services, environmental industries and services, industrial policies that enhance economic diversification	Sustainable agriculture, green construction, sustainable tourism, waste management, ecosystem services in climate change adaptation (nature conservation, restoration, reforestation, irrigation, flood protection etc.)
3. Financial policies: national supervisory and regulatory framework for the financial sector, development of financial sector and financial institutions (including micro credit, funds, etc.); credit facilities, access to credit, guarantees, payment facilities.	Green funds for green entrepreneurship among youth; Support to greening business practices in youth enterprises
4. Trade and Regional integration: Policies that promote efficient and well regulated trade and markets that benefit all	Measures to support export of sustainable agriculture products; Attract foreign visitors for sustainable tourism destinations; Facilitate the import of renewable energy equipment
5. Private sector development – support to public and private enterprises (including cooperatives) and micro-entrepreneurs	Support to enterprises in green sectors/value chains with high potential for youth employment; Support to incubators and technology hubs
6. Active labour market measures	
Incentives/subsidies to hire	Support green enterprises employing youth
Social stabilizers – public employment guarantee schemes, emergency public works, other direct job creation schemes	'Green works', i.e. public employment schemes targeting youth that create or maintain climate proofing infrastructure (e.g. flood protection) or improve

	<p>environmental quality (land restoration and rehabilitation, afforestation etc.);</p> <p>Payment for ecosystem services (PES): provide an income for those that protect/ support ecosystems through certain land management or agricultural practices etc.</p>
II. Supply-side measures	
1. Human resources development and vocational and technical skills	
Training policies and systems: vocational training policy review and development; management of training institutions and systems; investment in training; core work skills; work-based learning incl. apprenticeship	<p>Anticipating skills for green jobs among youth;</p> <p>Developing training modules/curricula relevant to green occupations;</p> <p>Training within green enterprises (FOIL etc.)</p>
Technology: improving capacity to innovate and invest; improving training delivery through ICT; improving access to ICT to reduce the skills gap	<p>Green technology and innovation centres;</p> <p>Facilitating accessible for youth</p>
2. Active labour market measures	
Job orientation measures	Publicising/promoting green jobs prospects and vacancies in green enterprises
Skills development, skills upgrading and re-skilling to improve employability, esp. for those having lost/at risk of losing their job and/or other vulnerable groups	<p>Sector-specific green skills promotion;</p> <p>Re-skilling programmes targeting youth in precarious or recently acquired jobs in sectors/enterprises under pressure from environmental regulations or market changes (e.g. plastic packaging material production, cement industry, etc.)</p>
Entrepreneurial skills development programmes	Green entrepreneurship promotion for youth
III. Labour market institutions and intermediation	
1. Employment services	
Support the reform and modernization of public employment services (career guidance, labour exchange services, delivery of active labour market programmes, and rapid response in the aftermath of crises)	Services targeting youth in green sectors and enterprises
2. Passive Labour Market policies	
Support for unemployment benefits, pre-retirement and pension schemes (esp. in the context of external shocks and structural change to green economy)	Target youth in unstable employment in sectors under environmental pressure incl. stricter regulations and taxation
3. Social dialogue, collective bargaining and institutional capacities	

Measures and mechanisms to address environmental concerns in dialogue and negotiations at enterprise and sector level; work-based learning on green practices with incentive for operators and workers	Social partners advocating and promoting green jobs for youth; Mobilizing social partners to engage in designing just transition low-carbon strategies
4. Wage policies	
Lowering income tax and/or social security charges on wages (e.g. by recycling carbon tax income)	Incentivizing the contracting of youth in green sectors and enterprises incl. start-ups

Source: Elaborated from ILO, 2012 (NEP Guide) and ILO, 2017.

The above is a sort of general menu, whilst the **appropriate mix of policy measures** will depend on national and local specificities. In 2014, the European Commission recommended member states to take measures that would realize the potential of the green economy (see [Box 2](#) below). Most of the key features of the EU Green Employment Initiative are also relevant for youth employment.

Box 2. The EU Green Employment Initiative (selected elements)

Supporting job creation:

- Improving access to and use of existing funding opportunities.
- Shifting taxes away from labour towards polluting economic activities.
- Promoting green public procurement, assisted by regulations on certification and life-cycle costing approaches, and supported by capacity building for public sector managers and private sector enterprises.
- Promoting entrepreneurship and social enterprises in expanding green sectors, accompanied by a dedicated Green Action Plan for SMEs with green skills upgrading of the workforce.

Bridging skills gaps:

- Fostering skills development, meeting skills demands in growing eco-industries, up-skilling across all sectors and re-skilling in vulnerable sectors.
- Aligning sectoral training standards in vocational education and training with labour market needs.
- Improving forecasting of skills needs across sectors and industries.

Promoting social dialogue:

- Encouraging social partners to develop joint activities at cross-industry and sectoral levels.
- Ensuring workers' participation in environmental management, more efficient use of energy and resources, and the identification of new risks at the workplace.
- Enhancing workers' rights to information and consultation, including for the development of sector-wide resource-efficiency roadmaps.

Source: European Commission, 2014.

Promoting green jobs for youth also implies to **protect and support young workers** in sectors and enterprises in shock or under pressure due to climate change, environmental conditions or new and tighter regulations (such as polluting or high-emission industries)⁷.

The above-mentioned EU Green Employment Initiative suggests the following measures to ensure a positive employment impact of the transition:

- Anticipating change and managing restructuring, building on sectoral initiatives.
- Promoting occupational mobility, as well as mobility of jobseekers, including through competence-based job matching.
- Adapting labour market institutions through Public Employment Services (PES) focusing on green employment strategies and programmes.

The following sections of this note explore some of the specific components of national employment frameworks, notably sectoral policies, skills development and entrepreneurship promotion. Though they are considered individually, in reality, these components are not separated but closely interlinked. For example, start-up enterprises and reformed vocational training systems can facilitate youth access to green sectors like green building or renewables.

3. A sectoral approach to green jobs creation

Key takeaways:

- *Start by assessing the potential and constraints for new jobs for youth in green sectors and value chains. Different methodologies can be applied for this purpose.*
- *Sectors like agriculture, energy, construction, tourism and environmental services hold large potential for green jobs for youth.*
- *For each sector, valuable experience is available to design and implement large-scale job creation initiatives tailored to national needs.*
- *Labour Ministries should work hand-in-hand with other national entities responsible for investment decisions and programme implementation.*

3.1 Assessing the green jobs potential of economic sectors

The Paris Climate agreement in 2015 has catalysed the efforts by countries to design and implement development strategies that will enable them achieve the agreed targets for emissions reduction. In most cases, this includes specific sector policies to promote investments in green industries and enterprises that the NEP should articulate with. In this respect, a key issue is to what extent sectoral shifts weigh in on employment and in particular for young unemployed and youth entering the labour market.

⁷ A recent example is the German Coal Commission Report, 2019. Abstract in English: <https://www.euractiv.com/section/energy/news/whats-in-the-german-coal-commissions-final-report/>

Employment projection models are a useful tool to anticipate the likely losses and gains in employment if a given increase in sectoral demand occurs, for instance when stimulated through targeted investments (ILO, 2017b). A range of analytical instruments is available to assess the green jobs potential of national investment choices. A useful overview is presented in the ILO's guidebook on how to measure and model social and employment outcomes of climate and sustainable development policies, in particular Module 2 (ILO & GAIN, 2017). The handbook also contains a full chapter on explaining the rationale for undertaking green jobs assessments, and on how to use results for policy-making.

The ILO has applied dynamic social accounting modelling based on the input–output tables of national economies. The approach involves close interaction with national stakeholders, especially to differentiate the most environmentally friendly economic activities from others and to determine what are the jobs linked to climate change adaptation. It also involves intensive capacity building. In undertaking national green jobs assessments over the years, the ILO has also supported the emergence of the Green jobs Assessments Institutions Network (GAIN), a growing body of research centres and public institutions engaged in green jobs analysis.

The country assessments carried out up to 2018 by the ILO confirm the potential for a net increase of jobs⁸. The robustness of the assessments depends largely on available and reliable information on labour market indicators and national accounts. The ILO has supported the piloting of a statistical definition of green jobs by countries like Albania, Mongolia (National Statistical Office of Mongolia, 2017) and, most recently, in Guyana. The methodology uses the definition of green jobs as agreed by the International Conference of Labour Statistician in 2013.

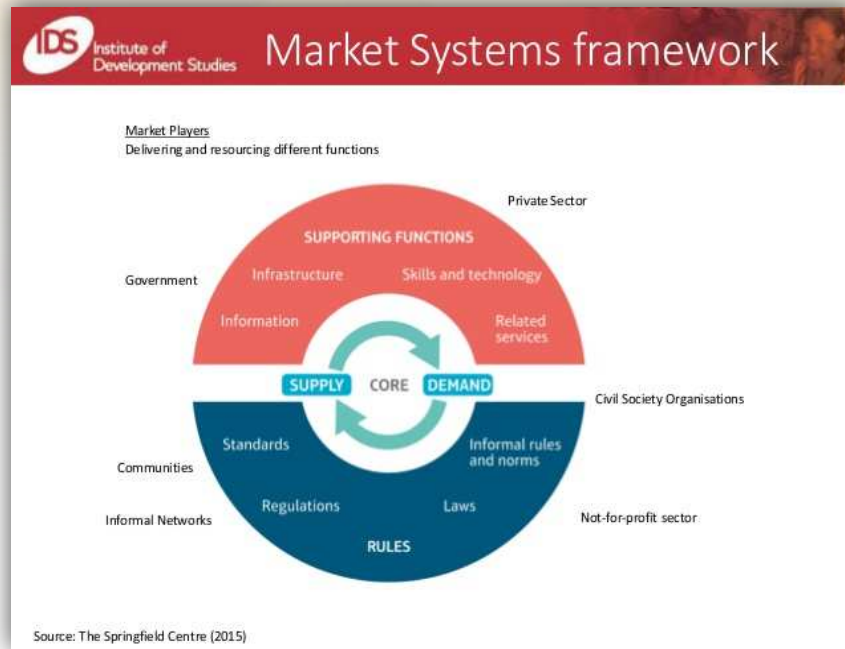
It is also essential to assess **skills gaps** in emerging sectors. The ILO has developed a practical guide for anticipating skill needs for green jobs (ILO, 2015). The guide provides useful suggestions on how to conceptualize and conduct research to anticipate skill needs for existing and expected green jobs. It combines qualitative and quantitative methods for skill needs identification and refers to employment projection models where linkages with qualitative approaches can be made meaningfully. Another useful approach is to focus on the needs for Skills for Trade and Economic Diversification (STED). This diagnosis focuses primarily in sectors with export potential. Nonetheless, the underlying conceptual approach to design and implement the most adequate and best-suited skills development strategies can be applied to sectors with green jobs potential too.

➤ *Market systems analysis*

Market systems analysis is another available methodology to orient policy and investment choices in support to economic sectors. The creation of green jobs in a given economic sector depends on the interplay of a number of factors –policies, values and norms, services and the influence of key actors such as enterprises, trade unions and civil society organizations, among others. **Market Systems Framework** (see [Figure 1](#)) map out all of these relationships and functions, and facilitates changes to address the most critical constraints to inclusive green growth.

⁸ See also WESO 2018, Greening with jobs, which puts the global estimate at 18 million by 2025.

Figure 1: The Market Systems framework



The middle section of what is commonly referred to as “the doughnut” represents the space (“core”) where economic transactions take place, such as the production and sale of a particular good, or an entire value chain, for example organically produced pineapple juice for export.

The market systems framework can also be used to look at the supply and demand of labour and the influence that public and corporate actors can exercise for the green jobs for youth. Such factors may include, for example, information flows or technical skills provision, as limited information may contribute to asymmetries in the job market, whilst lack or limited offer of training services may contribute to insufficient capacity of labour. By unpacking these constraints, the framework allows programs to develop solutions that are more appropriate.

The general objective of using a similar systemic approach is to stimulate inclusive growth. A well-functioning labour market to match the supply (of young, skilled workers) and demand (for green jobs) is a critical contributing factor. Applied to the market for environmental goods and services, or inclusive *green* growth in general, environmental standards and regulations come into play, as well as competency standards for skills, or investment promotion for green sectors (the two latter ones as “supporting functions” in the doughnut).

Box 3. Key questions to ask in a market systems approach for green jobs for youth

- Which markets are relevant to large numbers of young women and men, both as producers and as employees?
- Which of these markets have the highest potential for inclusive green growth?
- In what ways are these markets currently not benefitting young women and men sufficiently?
- What are the most binding constraints preventing reaching the full potential of green jobs for youth?
- Which of the markets are feasible for an intervention given the available time, budget and scope?

Guided by the type of questions in [Box 3](#), the analysis would allow to identify the underlying causes for why a market is not benefitting young people enough—whether through employment opportunities, income, rights, working conditions, or otherwise. Reasons for a lack of green employment opportunities for youth are not always obvious. A skills shortage may be the result of outdated training curricula, which in turn may link to limited research and development. Green business innovation might be stifled by capital constraints, which could be the result of banks lacking knowledge about the viability of green products and services, or it may be disadvantaged by tight regulatory standards.

When these dynamics are understood, appropriate interventions can be designed to facilitate a change in the way the system works rather than provide support to one function or actor directly. For example, instead of running a one-off training programme to bridge a skills gap, a review is done of the certification mechanisms and incentives for skills competences for green jobs. In other words, instead of dealing with symptoms, the approach addresses the deeper causes of, in this case, poor green jobs outcomes. Thus, the market systems approach can be helpful in building intervention models that are relevant to promoting green jobs for youth (see [Box 4](#)).

Box 4. Identifying constraints and opportunities for youth in Tanzania’s tourism industry

Market systems research in Tanzania’s tourism sector, including eco-tourism, found that young women and men working in the industry lacked sufficient skills for the further inclusive growth of the sector. As it turned out, there was a large mismatch between the skills provided by service providers and those demanded by the market. This was due to several factors, including a lack of dialogue between trainers and training institutions, information asymmetry between the private sector and training systems, the business management capacity of training providers, and the enforcement of training standards.

The research proposed various entry points to address the problem, including working with associations and government agencies to develop more effective coordination and information-sharing mechanisms, develop a business case and increase incentives for more effective training service provision, and facilitate stronger dialogue to increase industry partnership promotion, invest in better capacity development and enforce higher industry standards. At the same time, the research uncovered opportunities to improve access to finance, human resource services, and working conditions. Such a multi-prong intervention model targeting systemic constraints thus enables projects to facilitate scalable and lasting change.

Source: ILO, 2017c.

Many Governments, among others, have adopted sector-specific approaches because interventions can be bundled and better targeted. Actors such as national Ministries, business organizations and technical education and training institutions are often well-connected, providing effective entry points for project support. Value chain development brings in a particular focus on how resources are obtained, processed, produced and traded. Enterprise development with decent jobs for youth along sustainable value chains can be purposely promoted, as many development agencies have done. Large-scale examples involving all actors in global value chains include the Roundtable for Sustainable Palm Oil (RSPO) - albeit not specifically targeting youth.

3.2 Sectoral interventions for green jobs for youth

The potential of generating green jobs is particularly high in certain sectors where there is scope to invest further in green technologies and to build green value chains (see previous section of this note). Supporting such sectors would enable countries to also achieve the targets for emissions reduction, as

agreed in the 2015 Paris Climate Agreement. Some sectors particularly relevant to young people are considered hereafter.

➤ **Agriculture**

Despite a decreasing trend globally, agriculture continues to be the leading sector in employment generation, notably in Africa. Over 23 million young people were employed in agriculture in sub-Saharan Africa in 2015, with young women making up 42 per cent of the agricultural labour force⁹. The agricultural sector has the potential to employ an even larger share of young job seekers. But this may only materialize if productivity, working conditions and remuneration levels become more attractive to retain young workers in rural areas.

Linked to the above, another YEP Technical Note (ILO, forthcoming) shows that innovations in information and communication technology (ICT) can boost agriculture by facilitating information dissemination, access to skills development, use of mobile financial services and obtaining up-to-date market information. ICT can also help changing the negative perception of agriculture among young people, including through social media, networking and participation in policy dialogue. However, the adoption of modern technologies and production methods may also affect labour intensity, reducing the potential for young job seekers at least in the short term.

As sustainable and inclusive agro-based value chains expand and consumer markets grow in rural areas, more opportunities for off-farm employment are created. Appropriate business development services should be facilitated, including management advice and technical support such as extension services, to adopt climate-smart farming techniques and cultivate crops that are more resistant. Finance and capacity building, in general, should be expanded. Young people are well placed to embrace and apply innovations, thus becoming key actors in advancing green transformation in agriculture.

An example of a related, well-integrated approach is the SNV's Opportunities for Youth Employment (OYE) programme in Tanzania, Mozambique and Rwanda. By bringing a market development perspective the programme has adopted a comprehensive approach. The programme intends to improve the livelihoods of 27,050 rural, out-of-school young people between 18 - 24 years by engaging them in local agriculture, renewable energy, and water and sanitation businesses. The model, doped "*push, match, and pull*" links three key components in an approach to support rural market systems: i) skills and capacity development, ii) matching youth with market opportunities for employment and enterprise development, and ii) promoting value chain within growth sectors with real potential for employment creation, for example by promoting youth inclusive out-grower schemes or by creating self-employment in rural retail chains (SNV, 2019).

➤ **Renewable energy**

The rapid growth of investments and jobs in renewable energy holds potential for youth employment too. Employment in the industry grew with 5.3% globally in 2017, adding more than 500 000, with the

⁹ ILO calculation for young people aged 15 to 24 years old based on the LFM v1.5 database. The number increases to just over 33 million for young people aged up to 29 years old.

total number of people employed in renewables exceeding 10 million (unfortunately, the data are not disaggregated by age). Many of the jobs relate to the installation of photovoltaic panels (PVs), solar heated home systems (SHS), wind-powered devices as well as large hydropower projects. Solar PV creates, on average, twice the number of jobs per unit of electricity generation compared with coal or natural gas (IRENA, 2018). In some countries, the ratio could be as high as 5 jobs for each installed Megawatt (Schäfer, 2016, p. 31). Given that these are often temporary jobs, it is more important to consider the employment multiplier through the renewable energy value chain and the jobs created because of access to improved energy access. In some countries, the number of indirect jobs generated could be as high as five for each installed Megawatt (Schäfer, 2016, p. 31).

The expansion of renewable energy into rural areas can provide opportunities for unemployed youth (see Box 5 on a case from Sierra Leone).

Box 5. Engaging youth in marketing solar panels in rural Sierra Leone



Sierra Leone aims at providing access to all citizens by 2025 through the Power for All initiative. As a result of a more enabling business environment, many energy companies have been formed since 2016. An example is Ignite Power, intending to link youth towards employment in the distribution of renewable energies. The company trains the youths - free of charge - on solar panel installation and maintenance, whilst others are coached to set up small business in mobile money transfers and decentralized charging stations. Solar equipment and the related services are rapidly expanding into remote rural areas, with the potential to create an estimated 700 jobs for youth. Those with successful businesses may grow further by adding other services. Moreover, access to energy will allow the use of new technology and raise productivity of other rural enterprises including farms, stimulating local economic development and youth employment.

Source: Newspaper Standard Times, Sierra Leone (undated) <http://standardtimespress.org/?p=7472> (accessed 5 Oct. 2018).

➤ *Green buildings*

The ILO's GET for Youth 2017 report observed a proportionally high share of young workers in construction in countries like Nigeria and Ghana over the period 2005-2015. In Zambia too, where employment in construction as a whole doubled in the same, young workers accounted for almost half of the new jobs created¹⁰.

¹⁰ GET Youth 2017, page 41

The transition to a greener economy is expected to have a positive employment impact on the construction industry, including green housing. In countries with a rapidly growing middle class and a shortage of housing stock, there is considerable potential for jobs in the construction for energy efficient real estate using sustainable building methods and materials.

Yet, there are severe constraints for exploiting the full potential of jobs for youth in green buildings. Many countries have not yet crafted enabling policies with building codes and certification systems on green building standards. They are also short on providing incentives for the private sector to adopt and compete with greener business practices. Young workers are not adequately trained on handling new technologies and the use of sustainable materials in the construction industry.

The ILO has endeavoured to develop a systemic approach to transforming the building sector towards sustainable practices all along the value chain. Piloted in Zambia (see [Box 6](#)), the approach is now being offered for other countries through capacity building and advocacy. For example, the ILO's International Training Centre (ITCILO) is offering annual courses on the subject and offers training of trainers on the Start-and-Improve-Your-Construction-Business package for aspiring entrepreneurs.

Box 6. Decent work for youth in sustainable housing construction in Zambia

The Zambia Green Jobs programme helped to create jobs among youth through promoting sustainable enterprises in an expanding market for green housing. Supporting actors along the entire construction value chain were included, incl. forest growers, processors, manufacturers and retailers of local building materials, as well as buyers of green housing. Overall, 4'300 jobs were created out of which almost 75% for youth.

The model of intervention consisted of three components:

- i) Shaping attitudes, practices and behaviour towards the advantages of green buildings and their related job creation potential;
- ii) Policy level engagement which supports government and parastatal institutions to undertake a regulatory reform process to promote green building practices among private and public housing developers and support a Green Building Association; and
- iii) Capacity building of private sector associations and service providers, aimed at improving MSME access to industry-specific financial services as well as on functional and technical-vocational skills training.

Key factors useful for replication were:

- Project design highly relevant for country context and target group
- Systemic approach based on analysis of determinants and enablers of market creation
- Well-established Theory of Change explaining complex project design
- Strong partnership with National Government
- Good working relations with UN partners
- Supportive, engaged donor Government
- Strong communication strategy
- Developing employment projection models for replication in other sectors such as agriculture

Source: United Nations in Zambia, 2019; ILO's Success Africa V (forthcoming)

➤ *Sustainable tourism*

Tourism is an increasingly important economic sector. Data from the World Tourism Organization (WTO) indicate that, at the global level, activities contribute up to 10% of GDP (WTO, 2017). The share in total national employment is often higher, given the relatively high employment-intensity of tourism activities and the many indirect jobs it generates (WTTC, 2017a). In addition, the proportion of employed youth in tourism is generally higher than in other economic sectors (WTTC, 2017b). The age profile of workers in the tourism sector is relatively young. Just under half (47%) of people working

in tourism in European OECD countries are between 15 and 34 years old, with one third (32%) in the economy in general.

There is a significant multiplier effect on employment in other sectors in particular in rural areas. It is estimated that employment in the tourism sector creates approximately one-and-a-half additional or indirect jobs in activities related to tourism. If well managed, tourism can promote inclusive local development and employment generation for youth, especially if the tourism value chain is branched out around the places of investment.

On the other hand, the growth of tourism represents significant challenges to the use of natural resources, the protection of biodiversity and the preservation of unique cultural values. In terms of effects on climate change it is evident that transport related to tourism - by air, by land and by sea – generates an increasingly high level of greenhouse gas emissions. More countries are adopting the concept of sustainable tourism (see also ILO, 2016). They have formulated specific policies and dedicated programmes to achieve a balance between economic goals, social benefits and environmental values. In several of these countries, eco-tourism has become the lead segment within national tourism, such as in Costa Rica, Peru or Lao PDR.

Government policies need to go hand in hand with promotional measures on the ground. In South Africa, the Social Responsibility Implementation Programme (SRI) aims to stimulate employment creation in the tourism sector with a priority on youth development (NDT South Africa, 2019). Skills development and training to make youth fit for jobs in tourism is a key element of the programme.

In Indonesia, the ILO supported the development of national strategy for sustainable tourism and green jobs, building on the results of a pilot project for youth employment in East Java (ILO, 2012b). In 2018, a multi-year technical cooperation programme funded by SECO was launched to support integrated sustainable tourism master plans and their implementation in five selected priority tourism destinations (SECO, n.d.). The collaboration with polytechnic training institutions is expected to produce graduate students with relevant skills in line with the needs of the tourism industry and to contribute to the sustainable development of the sector.

In the Lao People's Democratic Republic eco-tourism is promoted as part of the Government's Tourism Strategy 2006-2020 (see LNTA, 2006), which aims to foster eco-tourism environmental protection and socio-economic development for host communities. Its training and capacity building component works through a mobile training unit under the auspices of the Lao National Tourism Administration to coordinate and develop standardized training programmes and manuals for key actors. These include tour guides; eco-tourism awareness programmes for national and local government staff and local communities; eco-tourism business skills for guest house and lodge owners; and specific eco-tourism planning and management courses for national and local government officers. The Government also supports the development of vocational, diploma and bachelor's degree courses for youth aspiring to work in the eco-tourism, tourism and hospitality sectors.

➤ ***Natural resource management and related infrastructure***

Protecting and restoring ecosystems can help prevent the loss of jobs and income. Most of the world's poor people depend on the use of natural resources, including soil, water, and forest and fishing resources. Climate change and overuse of scarce resources is a growing threat to sustainable livelihoods, especially in rural areas.

Conserving and improving the natural environment can be a source of many jobs for youth. Environmental policies and programmes addressing this challenge can be designed in such a way to provide social benefits for the most vulnerable. Payment for Ecosystem Services (PES) is an approach to preserve nature and rehabilitate degraded resources or prevent the situation to get worse. Workers, typically residing in the communities affected by degradation, earn an income by adopting specific natural resource management practices. Countries like India, Brazil, Mexico, Peru and South Africa are allocating public finance to implement such programmes in affected rural areas.

Job opportunities for youth are also created through the implementation on public employment programmes related to basic, sustainable infrastructure. This includes flood protection, anti-erosion provisions, but also water supply and sanitation. An approach prioritizing locally available inputs and technical capacities can yield benefits in terms of both local employment generation and environmental protection. The ILO supported the promotion of green jobs through such “green works” (ILO, 2011) in several countries (Mauritania, Haiti, and East Timor, among others) and different subsectors including irrigation, soil and water conservation, flood control, and rural transport. Income and other benefits were obtained by young people who often represented a large share of project beneficiaries. Capacity building constituted a key component of these programmes addressing climate change at the local level.

South Africa has, over many years, implemented large-scale public works programmes related to the environment. The Working for Water is an ecological restoration programme with a job focus especially for youth, established in 1995. It has been sustained over 20 years during which it also spawned a number of other programmes with a natural resource focus (such as wetland restoration). As a programme with more than 300 projects across South Africa, that has cleared more than a million hectares of invasive plants, created employment for approximately 20,000 people per annum, with a total budget of R3.3 billion (or US\$ 240) over its life span (PAGE, 2016).

4. Skills for green jobs

Key takeaways:

- *Skills development is required to better equip youth to take up green jobs.*
- *Anticipating the changing need for technical and managerial skills should be undertaken at sector level whilst generic skills for sustainable development should be promoted throughout the society.*
- *Relevant conceptual frameworks and tested methodologies are readily available to design and implement skills development reviews and reform.*

Skills development is a key component of national employment policies and can be highly instrumental for green jobs creation in particular for youth. Adequate skills of workers and managers are a prerequisite for the advancement of the green economy and the creation of green jobs for youth. Given the sometimes rapid development in green sectors such as renewable and buildings, market expansion has been hampered in many countries by a shortage of appropriate skills and technical expertise. It is therefore important to anticipate expected changes in skills need and use these for the adaptation or

reform of technical and vocational training systems and courses. However, developing skills for green jobs is not only reactive and can be an important driver of change itself as well, especially among youth. New and better skills foster innovation and trigger investment in green activities, thus accelerating the green transformation.

There is a growing consensus about the key role of skills development for inclusive green growth. Nonetheless, this does not often translate in giving it a high priority in policies and programmes. A recent ILO survey as part of the WESO 2018 report found that, although in the majority of countries the evolving skills needs are being monitored through platforms and other mechanisms, only a few include a focus on green jobs (ILO, 2018). Those countries that have undertaken dedicated training programmes for green jobs have done so for specific sectors, such as waste management, construction or renewable energy. This often is the most appropriate and feasible entry point for adjusting and expanding capacity building for green jobs. A more ambitious and costly approach would include a reform of the entire skills development and training system in a country to accelerate the green transition. The survey also found that, in many cases, the definition of skills for green jobs is not commonly agreed and data collection falls short. The lack of reliable data confounds the shaping of coherent skills development policies for the green transition. These are also predicated on a stronger overall recognition of the role of investing in human capital and better inter-ministerial and tripartite institutional coordination.

Governments can **anticipate the skills needs for greening in priority sectors** in line with national employment policies and sustainable development strategies, in particular those to achieve emission reduction targets in line with the Paris 2015 climate agreement. Some countries have made worthwhile efforts to reflect an environmental dimension including climate change in the national skills policies and programmes. India is an example (see [Box 7](#)).

Box 7. Skills development for jobs in solar energy, India

India has established the Sector Skill Council for Green Jobs to address the shortage of skilled workers in the installation and maintenance of solar panels. It is joint initiative by the Ministry of New and Renewable Energy (MNRE) and Confederation of Indian Industry (CII), established in 2015. Its broader mission is “to identify skilling needs of service users as well as manufacturers and service providers within the Green Businesses sector, and implement nation-wide, Industry-led, collaborative skills development and entrepreneur development initiatives that will enable meet India’s potential for “Green Businesses”. The initiative underpins the country’s investment in renewable energy. The Council plans to accredit 60 training organizations in the solar energy sector, provide trainee certification, and train 1,500 trainers during its first year of operation. It will also draw up a comprehensive skills development plan for the next ten years.

Source: SCGJ, 2016.

The analysis of skills required in changing and emerging occupations in a greener economy is particularly relevant in sectors that are prone to change, such as energy and construction, but also across the economy where generic skills are more and more demanded. The latter concern for example knowledge and attitudes about reducing resource consumption, waste management and the safe handling of environmentally hazardous substances.

Useful guidance is the form of a framework for policy analysis and programming for jobs and skills in the green economy is provided by the platform for *Advancing Green Human Capital* created by UNESCO-UNEVOC, ILO and AfD at the occasion of the UNFCCC meeting in Fiji, 2017 COP23). The guide is designed to help national governments in the analysis and subsequent strategy development, but is also relevant for subnational policy and all stakeholders in the fields of both education and training and sustainable development.

The framework is built around three main components for policy actions. These concur with the steps in the national employment policy cycle presented in Section II above, but in this case with a specific focus on skills for jobs in the green economy. The areas are: (i) Market analysis and policy orientation (similar to the preparation and diagnosis stage in the NEP cycle); (ii) Stakeholder awareness and ownership (similar to the formulation and planning stage), and (iii) Integrated governance (similar to the implementation, M&E and review stage).

Detailed suggestions are provided in each area to help guide actions and setting objectives. So called trigger points (see [Table 4](#)) define actions led by different policy representatives and targeted at different stakeholder groups in working at the various policy phases. All together, the 19 trigger points for 8 distinctive policy actions in the three areas represent a path how skills development can progressively be integrated into green policies. Yet, the process is not necessarily linear, as a number of actions and measures can be developed simultaneously or in short loops. Besides, the guide also signals the importance of linking up skills development across Government ministries with other key green economy policies and investment plans at any given step in the process.

Table 4. Examples of policy areas and trigger points

Policy area	Sample policy actions	Sample trigger point (or indicative key results)
1. Market analysis and policy orientation	Promoting political willingness and strategic vision	Senior leaders across government are aware of the links between employment, social and environmental policies and the importance of acting on greening skills
2. Stakeholder awareness and ownership	Designing a legislative framework and financial plan to act on greening skills	A legal basis for policy actions including laws, decrees and other forms of regulation structures the efforts to adapt jobs and skills and TVET in various sectors
3. Integrated governance	Enhance mutual reinforcement between policies and targets across sectors and levels of governance	Actions implemented across sectors and territories are compiled, analysed, evaluated and disseminated in order to feed and accelerate the national effort towards sustainability-related skills

Source: Platform for Advancing Green Human Capital (PAGHC), 2017

Over the past decade, the ILO and others have undertaken various **projects** to enhance the recognition and uptake of skills for green jobs in TVET institutions and curricula development. Examples include:

- Fortalecimiento de sistemas integrados de Formación, Orientación e Inserción Laboral (FOIL), Central America countries and the Dominican Republic. In the seven countries where the project was implemented, new standards have been developed together with training modules for a range of green occupations. In turn, the collaborating training institutions reached 8,000 workers with

technical vocational training in solid waste management, water treatment and the implementation of environmental management systems.

- A good example about mainstreaming training in the national system of vocational qualifications is training of solar panel installers targeting youth and women in Bangladesh (Grameen Shakti mainstream by the ILO with the help of AUS Aid). Young women were also targeted through the working for Water programme in South Africa and at the Barefoot College in India.
- The Skills Development for a Green Economy (SD4GE) Programme of GIZ supports the Department of Higher Education and Training (DHET) to replicate dual occupational programmes in the context of South Africa green economy strategy. The programme pilots an integrated dual training programme for electricians and plumbers: it combines learning at TVET colleges with structured workplace-based training in companies, just like an apprenticeship. Successful learners will undergo a trade test upon completion of the programme. Mechanisms and procedures are established for the successful replication for other green occupations.

Some of the key features of these successful initiatives are: (i) their strategic orientation with regard to national training systems, keeping in mind the importance of skills policy change; (ii) their close collaboration with local training experts to be able to contextualize and adapt new training modules appropriately, and, in the case of Central America; and (iii) the involvement of the private sector, business organizations and trade unions to build consensus through social dialogue on the type and scope of skills reform.

From a global review of 21 countries in 2010¹¹ the ILO distilled general policy messages on skills for green jobs which are also applicable when targeting young people (see [Box 8](#)).

Box 8. ILO policy messages on skills for green jobs

1. Improve policy coordination at all stages of a green development strategy, for example by creating dedicated task forces or steering committees on human resource development, or by incorporating training and skills issues into existing bodies for sustainable development.
2. Focus on retraining and the development of portable skills to encourage occupational mobility and improve employability. Public employment services can be helpful, offering short vocational training courses, tailored to employers' needs.
3. Prioritize training for disadvantaged groups such as youth. Training should be made accessible to disadvantaged youth, people with disabilities, rural communities, and other vulnerable groups. This is a prerequisite to ensure that green growth is also inclusive and prevents the widening of inequalities.
4. Ensure that trainers keep up to date. Information and knowledge on green technology, production methods and new products is changing rapidly, as are markets. Those teaching young people should be abreast with the latest development to optimize the employability of graduates.
5. Improve systems for identifying and anticipating skill needs. There is a need for analyzing and anticipating the demand for green job skills. Existing systems should be amended. Initiatives as part of national human resource development strategies, should involve government, employers, workers and providers of training and education, possibly evolving in sectoral skills councils.
6. Use social dialogue. Engaging trade unions and employers' associations into skills development strategies can make education and training system more responsive and hands-on for rapidly changing needs. Moreover, it can catalyse change on a larger scale.

Source: Greening the global economy: the skills challenge. Skills for Employment Policy Brief, ILO 2011

¹¹ More recent insights at https://www.ilo.org/skills/projects/WCMS_706922/lang--en/index.htm

5. Entrepreneurship promotion

Key takeaways:

- *Entrepreneurship promotion programmes for youth increasingly incorporate or blend different green business options in their portfolio.*
- *In recent years, large scale facilities have been established solely focusing on green entrepreneurship with the support of major donors.*
- *Available evidence suggests that a combination of training, incubation and financial support for start-up provide the best chances for success, but is also the most costly model.*

The promotion of entrepreneurship spirit and the support to start-up enterprises are commonly considered as effective means to jobs creation for youth, which is mirrored in existing national employment policies. Many Governments and private sector organizations, often supported by international agencies and development partners, are financing and implementing large-scale programmes of technical and financial assistance for entrepreneurship. Sometimes this is part of comprehensive private sector development programmes such as those adopting a market systems approach. Others have sprung out of assistance to education and training systems as an effort to add support for the transition of youth from school to work.

Enterprise and entrepreneurship support programmes tend to deploy a wide variety of approaches and instruments. These range from policy measures to improve the overall business environment to more targeted measures related to finance and business development services. Examples of the first type are fiscal reform, land ownership regulation, access to public procurement, trade regulation and infrastructure development such as common service centres or incubator hubs. Examples of the second are services to improve market information, access to credit, technology support, innovation and start-up, entrepreneurship training and coaching, etc.

The ILO carried out a large-scale review of entrepreneurship interventions in 2015 as part of its efforts to document and advocate for “What Works in Youth Employment” (Kluve et al., 2017). The review concluded that in most cases entrepreneurship promotion leads to more jobs, increased income and better business results. It showed that most (youth) entrepreneurship promotion programmes combine training with market access facilitation. Many, but not all, integrate or link up with (micro-) finance facilities. The effects appear to be stronger when a combination of support services are delivered rather than offering training alone. Several agencies have taken such a multi-layered approach.

Entrepreneurship promotion is singled out in this Note, as it is particularly suited for the creation of green jobs for youth. Over the past decade, many generic entrepreneurship programmes have come to include green business ideas and promotion of green business practices in their support. Some have focused solely on green sectors and enterprises, such as the SWITCH portfolio financed by the EU, or the HIVOS Green Entrepreneurship programme (see [Box 9](#)).

Box 9. The HIVOS Green Entrepreneurship programme

HIVOS' Green Entrepreneurship programme adopts a systemic approach that includes close collaboration with government agencies, local incubators, universities, business support organizations, financial institutions and investors. The aim is to co-create a support network that can take socially and environmentally conscious entrepreneurs from the start-up phase to becoming sustainable and investable businesses with long-term impact. The programme for Southern Africa (2018 – 2020) has a budget of €2.7 million and has so far trained local business support trainers, developed business support structures and investment in frontrunner SMEs through HIVOS' impact investment facility to accelerate the growth of exceptional SMEs.

Source: Hivos, 2019.

An increasing number of private sector development programmes are including a focus on business opportunities in the green economy. An example is ILO's long-standing *Start-and-Improve-Your-Business (SIYB) programme* under which, at national level such as in Indonesia, The Philippines, China, Egypt and Tanzania, sector-specific adaptations of its training materials for business development were produced and used, like in green construction, waste management, organic agriculture, renewable energy, sustainable tourism and other sectors. An international version of the Start and Improve Your Construction Business (SIYCB) is being promoted by ILO's International Training Centre in Turin, Italy.

A related tool is ILO's *Green Business Option (GBO) training kit*. The GBO training program, implemented between 2009 and 2013, focused on how to transform environmental awareness and motivations of potential entrepreneurs into environmentally friendly, economically viable, and socially just business ideas. Beneficiaries of GBO are potential entrepreneurs, in particular young women and men and their (future) micro and small scale green businesses. Initially, GBO was designed to target especially university and college students and young graduates. The project expanded to other target groups such as retired servicemen, laid-off workers, and young rural workers. Trainings were organized for experienced SIYB trainers that led to the establishment of 170 trainers as GBO experts. Over the years, some 2,000 young green entrepreneurs have been trained.

Several programmes have included a green window in their generic business start-up promotion approach as a sequel to initial entrepreneurship training among youth. An example is the *Youth Entrepreneurship Facility* in East Africa ([Box 10](#)).

In support of the country programmes for green entrepreneurship the ILO has produced a simple Green Business Booklet (ILO, 2017d) following an earlier manual called "Are you in search of a Green Biz Idea" (ILO, 2012c). The Booklet is part of the Green Jobs packages and the Start and Improve Your Business series of products and helps aspiring entrepreneurs to come up with a new green business idea and guides existing entrepreneurs how to green their businesses ([Box 11](#)).

Some agencies have built up large-scale facilities meant to catalyse business creation solely through green entrepreneurship development. SwitchMed, for example, offers 2,700 green entrepreneurs from eight countries to take part in their training programme (SwitchMed, 2017). The participants benefit from training how to use tools to turn their innovative ideas into a Green Business Model. The best 270 green ideas are selected for further support and improvements. In the end, 30 Green Business Models receive technical and financial advice, whilst nine will be awarded financial support. SwitchMed not only helps business creation. It also actively builds and drives networks of green entrepreneurs and

support organizations that are seen as change-makers and named “Switchers” (The Switchers, 2019). These actors implement innovative ecologic and social solutions that contribute to a switch to sustainable and fair consumption and production. Together they represent a wide range of businesses, including in organic farming, sustainable tourism, waste management, organic textile, recycling of electronic waste, sustainable building, and organic cosmetics production, among others. The SwitchMed facility is part of the global support financed by the EU to promote green economy, green enterprises and green jobs that includes SwitchAsia and SwitchAfricaGreen, which also have a policy component for creating an enabling environment for green business creation and growth. Green entrepreneurship promotion for youth is prominent in SwitchMed, but also part of the other facilities.

Box 10. The ILO’s Youth Entrepreneurship Facility (YEF): promoting green business and youth entrepreneurship.

The Youth Entrepreneurship Facility (YEF) aimed at decent work creation through youth entrepreneurship in Kenya, Tanzania, and Uganda. The programme was implemented from 2010 to 2014, through a partnership between the Africa Commission, the Youth Employment Network (YEN), and the International Labour Organization (ILO) and funded by DANIDA. YEF included green entrepreneurship training, with about 1’000 youth entrepreneurs reached.

YEF has successfully adapted an existing ILO training tool to exclusively focus on green entrepreneurship among youth. It achieved large-scale outreach and sustainable institutional impact. Examples are: i) the Junior Achievement Kenya through which green business concepts and entrepreneurship have been introduced in among 25,504 students in secondary school students and 787 in universities; ii) The Enablis Entrepreneurial Network and Chase Bank business plan competitions with a Green and Ecological Business category were supported. In total 5,967 participants received business planning and green entrepreneurship training across major towns in Kenya.; iii) the Lighting up Kenya Programme that, with UNIDO support, established renewable energy centres, managed by the local communities; and iv) the Kenya Women Finance Trust YEF trained 30 women Renewable Energy Ambassadors (REAs) in support of the Trust’s loan portfolio. In 2014, 500 women entrepreneurs were trained using SIYB programme under this partnership.

Source: George Waigi, preparatory review for this Technical Note.

Box 11. What is a Green Business?

Similar to the concept of green jobs, the ILO Booklet defines green business from two perspectives:

- one relates to the output in the form of green products or services
- the other relates to greening the process of an economic activity.

Both type of green business generate green jobs.

The EU-funder SwitchMed programme, aiming to promote green entrepreneurship in the Mediterranean Region, adds the following social aspects:

- Green entrepreneurship is about developing innovative business solutions to environmental challenges that are economically viable and socially empowering, in the field of productive, circular and sharing economies;
- Eco-entrepreneurs innovative business models create ecological and social value.

Source: ILO. SwitchMed.

Another inspiring example of similar scale is the global SEED initiative ([Box 12](#)), exclusively focused on green entrepreneurship. Its strength lies in combining customized support to innovative start-ups with outreach and advocacy for creating an enabling “eco-environment” for green business

development. SEED's efforts on documenting local impact and attaining global visibility are exemplary (see SEED, 2019a).

Box 12. Promoting Entrepreneurship for Sustainable Development: the SEED initiative

SEED is a global partnership for action on sustainable development and the green economy between UN Environment, UNDP and IUCN founded at the 2002 World Summit on Sustainable Development in Johannesburg. It aims at building the ecosystem for social and environmental entrepreneurship and operates an annual global awards scheme that scouts for and supports the most promising innovative and locally led social and environmental start-up enterprises in developing countries. The focus is on the poor population along their value chain, as suppliers, distributors or consumers. The emphasis is on deprived women and unemployed youth.

SEED deploys a variety of means of action:

- Championing promising social and environmental enterprises through annual awards of a package of capital support, networking and capacity-building
- Evidence-based policy advocacy for enabling conditions as part of green and inclusive private sector policies accelerating entrepreneurial solutions to policy- and decision-makers.
- Strengthen Enterprise Ecosystems through supporting Business Development Service provider
- Capacity building, knowledge sharing, peer-learning and partnerships to bridge the gap between entrepreneurs, business leaders, policy-makers, the community of finance and practitioners

The approach includes the replication of business models or the setting up of franchises through the provision of Replication Manuals and the facilitation of partnerships via Connect Workshops. The SEED Awards are placing particular emphasis on eco-inclusive enterprises in sectors of waste management, agro-processing, energy and green technologies.

Source: SEED, 2019b.

6. Seizing the green jobs opportunities for youth: Ways forward

In many countries, the expanding green economy holds a yet unexploited job creation potential, including for young women and men. Governments and their partners should give high priority to mobilizing investment in green sectors, technologies and skills to manage and operate new business models.

When designing strategies and interventions to promote youth employment, decision-makers and practitioners may consider whether to take a full-fledged green jobs promotion approach (“green-only”), or to enhance the integration of green jobs within existing institutions and programmes (“green blending”). Evidently, these two approaches are not mutually exclusive. A good articulation and coherence among the respective measures is actually desirable to scale up influence and impact.

No single blueprint is available or recommended. In reality, there is a multitude of entry points or opportunities for synergies among policies and programmes of different kinds, as illustrated in this note. In case Government's priority is on formalization, for instance, a green jobs strategy for youth could focus on how to help set up registered green businesses or organize youth workers in recognized cooperatives, possibly in renewable energy (ILO, 2013) or waste management. In similar vein, if

migration is a national priority, the strategy could include green jobs employment services or skills training for youth considering leaving the country, thus addressing the root causes of migration.

A national employment policy framework encompasses these and other dimensions, thus offering multiple entry points to adopt models of change which enables a green economy to grow whilst promoting decent jobs especially for young women and men.

A strategy for promoting green jobs for youth is best developed using the comprehensive national employment policy framework and making the links with climate change challenges and the opportunities created through environmental policies. In this process, it is crucial to reflect on the roles of and modalities for enhanced collaboration among all different stakeholders, in the public, private and civil society sector.

Programme designers should take into consideration the overriding importance of an overall enabling environment for green economy investment that induces markets and sustainable enterprises to create green jobs for young people.¹² The market systems framework described in this note is a viable tool to analyse what regulates the functioning of markets and value chains (Ripley, 2017). The aim is to enhance decent work creation by making markets - of green products and services - more inclusive, in this case for youth.

Importantly, as green jobs must also be decent jobs, policy measures should always include the promotion of fundamental principles and rights. This is particularly relevant in informal work or hazardous occupations in waste management, the construction sector and parts of agriculture. Given that these jobs contribute to a sustainable environment, they can be promoted as “green jobs” by improving their quality and security.

¹² This is reflected, among others, in the programme design of the Partnership for Action on Green Economy (PAGE), in the intervention model of GGGI country programmes, and in the policy guidance by AfD (2015).

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YEP Technical Notes

Drawing on international literature and relevant country cases, the YEP Technical Notes are meant to support decision-makers and practitioners who endeavour to ensure decent job opportunities and a better working future for young people.

These notes consider key issues pertaining to a given subject area, and offer orientations, technical insights and examples of interventions that work effectively in improving youth transitions into labour markets as well as their employment conditions.



The ILO's Youth Employment Programme (YEP) supports national capacity to design, implement and evaluate context-specific youth employment policies and programmes. It operates through a network of ILO specialists and external partners, towards meeting national and global development goals.

Youth Employment Programme
International Labour Organization
Route des Morillons 4
CH-1211 Geneva 22
Switzerland
www.ilo.org/youth
youth@ilo.org