



Youth Entrepreneurship for the Green and Blue Economy

Policy Toolkit



The Commonwealth

POLICY TOOLKIT

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Executive Summary

Since the 2008 Global Financial Crisis, the number of unemployed young people has soared to an estimated 73.4 million young people, representing 12.6 per cent of the total youth population, an increase of 3.4 million between 2007 and 2013. At the same time, while significant progress has been made in some specific environmental issues (e.g., ozone layer depletion by chlorofluorocarbons), the environmental challenges worldwide are still huge, namely:

- An estimated 1.3 billion tons of food – one third of all food produced – is wasted every year while almost one billion people are undernourished and another one billion are hungry;
- Only 20 per cent of final energy consumption is from renewable sources and, despite the technological advances improving energy efficiency gains, energy use in OECD countries will continue to grow another 35 per cent by 2020;
- Humans are polluting water faster than nature can recycle and purify water in rivers and lakes;
- Land degradation, declining soil fertility, unsustainable water use, overfishing, and marine environment degradation are all lessening the ability of the natural resource base to supply food.
- Developing countries are expected to bear the initial brunt of climate change, which is where more than 90 per cent of the world's young people live.

Young people around the world can play an instrumental role in creating the change required to ignite innovations that lead to sustainable development outcomes. Youth entrepreneurship may contribute to the social, economic and environmental innovation required to drive sustainable development at local, national and global levels. This requires young people to be brought into the policy making process as legitimate and significant stakeholders. A key framework for policy makers in this regard is the Sustainable Development Goals (SDGs), which guides national policy making in all fields.

Youth entrepreneurship can respond to the SDGs call for economic transformation and the decoupling of the economy from environmental degradation. This includes access to affordable, reliable, sustainable and modern energy for all (Goal 7). While the SDGs acknowledge the United Nations Framework Convention on Climate Change as the primary international, intergovernmental forum for negotiating the global response to climate change, young entrepreneurs can play a key role to develop a green economy by bringing new products to market to transform the way energy is produced, distributed and consumed. They can introduce new climate change mitigation technologies and processes to the market and influence society's consumption patterns.

The SDGs support improvements to global resource efficiency in consumption and production (Goal 12) and the decoupling of economic growth from environmental degradation, in accordance with the Ten-Year Framework of Programmes on Sustainable Consumption and Production. The SDGs also contain targets within Goal 9 for retrofitting industries and adopting clean and environmentally sound technologies and industrial processes. This requires entrepreneurs to integrate environmentally sound decisions into supply-chain management systems and promote environmental consciousness among consumers. Entrepreneurs and innovators play a key role in this agenda

More recently, specific attention has been given to the blue economy. This concept emerged during the 2012 Rio+20 United Nations Conference on Sustainable Development and was expounded at the Third International Conference on Small Island Developing States (SIDS). It recognises the need to maximise the enormous economic potential of the world's oceans and the need to preserve this important natural resource: 'A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy'.

The Commonwealth Secretariat (2016) has called for fundamental changes to the way the world's oceans, seas and coastal areas are managed. It recommends countries 'embrace new marine-based sectors such as aquaculture, biotechnology and ocean-based renewable energy, while urging governments to improve the way they operate to ensure the survival of global fishing, maritime transport and coastal tourism. 'An investment in the Blue Economy', says Angelique Pouponneau of the Commonwealth Youth Council 'already provides young people with new aspirations, new dreams and new job prospects. Young people across the Commonwealth have also endorsed the Blue Economy concept and a recommendation was made to use the Blue Economy concept for job creation and promote entrepreneurship.'

The UN (2017) Oceans Conference in New York highlighted the increasing economic benefits to small-scale artisanal fishers. Maximising these opportunities from an ocean-based economy will require a multi-stakeholder approach, with tourism, environment, fisheries, transport and trade, finance, and other ministries working together to promote sustainable development and economic growth. 'Important actions include implementing policies that promote business activity without increasing pressure on fisheries, and improving access to education to foster community development and empowerment and the protection of natural and cultural heritage sites'.

This Policy Brief provides a guide to better understanding these challenges, learning from recent initiatives around the world. It offers a broad range of practical considerations to improve the role of public policy in promoting an integrated response to the opportunities and challenges facing young people, the economy and the environment.

Drawing from the UNCTAD (2012) *Entrepreneurship Policy Framework and Implementation Guidance*, the UNCTAD-Commonwealth Secretariat (2015) *Policy Guide on Youth Entrepreneurship* identifies six priorities for guiding policymakers. The challenges of green and blue economic growth go beyond a business-as-usual approach to economic and entrepreneurship development and require a shift in the conventional economic and social frameworks used to guide development. The transformation to achieve green and blue growth through youth entrepreneurship require policy makers to connect a number of important and varying policy domains:

1. The transformation of 'brown' markets toward green and blue economic growth;
2. The promotion of entrepreneurship and innovation, designed both to support and benefit from the above transformation; and
3. Support for youth entrepreneurship to help young men and women successfully engage in new, disruptive and transformational markets.

Thus, policy makers are required to balance and, where possible, integrate a range of diverse policy objectives. The table below summarizes the key policy messages contained in the guide.

Key Policy Messages

Policy Areas	Actions	Approaches
Formulating national youth entrepreneurship strategy	Create a national policy framework to transform the economy and enhance the role of entrepreneurship	Establish the policy settings for economic transformation and encourage innovation and entrepreneurship, with specific reference to supporting the role of young entrepreneurs.
	Identify the national priorities	Identify the priorities associated with transforming the national industrial base towards more sustainable, non-carbon-based systems of production and determine the specific challenges facing young entrepreneurs.
	Identify youth entrepreneurship opportunities and challenges	Focus policy efforts on the enormous range of opportunities for young, emerging entrepreneurs in the green and blue economies. Ensure youth entrepreneurship strategies contain a chapter specifically dedicated to green and blue growth.
	Design an integrated national policy framework for youth entrepreneurship in the green and blue economies	Create a clear framework for government and the private sector to work together across many portfolios and sectors, ensuring that global and national environmental challenges are clearly articulated.
	Improve the ecosystem for youth enterprise and sustainability	Map the current status of youth entrepreneurship and address any gaps or weaknesses in the support provided to youth enterprises.
	Identify youth cohorts and define strategies to achieve specific goals and priorities	Strengthen the connections between green and blue industry development and youth entrepreneurship, specifying clear target groups or cohorts of young people and their capacity to contribute to economic, social and environmental goals.
	Ensure alignment within and across key policy domains and create policy synergies	Align policies for economic and social development, green and blue growth, private sector development and entrepreneurship, and youth entrepreneurship.
	Designate a lead institution	Provide strategic oversight and co-ordination across government and promote co-operation among all relevant public, private and community actors.

Policy Areas	Actions	Approaches
Optimising the regulatory environment	Consider the impact of the business environment on innovation and entrepreneurship	Ensure that poor policy, laws and regulations do not stifle entrepreneurship and innovation.
	Identify sustainability priorities for legal and regulatory reform	Assess the business environment within the green and blue sectors.
	Regulate for market transformation towards sustainability	Level the playing field for greener and bluer products, phase out antiquated subsidies and stimulate new sustainable markets.
	Minimise regulatory hurdles for youth entrepreneurship	Assess the legal and regulatory barriers young entrepreneurs face, including those experienced by young businesswomen.
	Regulate for transformation	Identify and remove regulations and incentives that allow the overexploitation of natural resources and undermine the transition to sustainable development.
	Establish inclusive public–private dialogue on regulatory costs and benefits	Policy-makers and regulators can learn from the experiences of businessmen people who are working in new green and blue markets.
	Balance regulation and standards with sustainable development objectives	Work with the private sector to communicate regulations and help firms identify, acquire and assimilate the technologies needed to meet them.
	Build entrepreneurs' confidence in the regulatory environment for green and blue markets	Improve policy and regulatory transparency, accountability, impartiality and predictability.
	Introduce good regulatory practices and standards	Systematically review regulations to determine their suitability for achieving green growth objectives, reducing regulatory risks and creating incentives for more sustainable business practices.
	Facilitate and support voluntary standards	Work with industry to reduce environmental impacts and improve energy efficiencies through voluntary sustainability standards, ecolabelling and traceability systems.

Policy Areas	Actions	Approaches
Enhancing sustainable entrepreneurship education and skills development	Build the capacity of young entrepreneurs to succeed in green and blue markets	Support the development of entrepreneurial skills, attitudes and experience through education and training.
	Link education and training to green and blue growth strategies	Ensure young women and men develop the skills and experience for entrepreneurship in the green and blue economies.
	Develop sustainable entrepreneurship curricula	Ensure trainers and teachers of entrepreneurship education and entrepreneurship programmes have practical knowledge and experience of entrepreneurship and deliver training in an experiential manner.
	Embed entrepreneurship in the education systems	Give students at all levels the opportunity to learn about and experience entrepreneurship for sustainable development.
	Create partnerships between education and training providers and the private sector	Increase the opportunities for collaboration between the education system and industry.
Facilitating technology exchange and innovation	Nurture innovation and the development of new technologies	Encourage young entrepreneurs to become more competitive through new technology.
	Promote the development of green and blue technologies by and for young people	Support young people's involvement in the technology innovation value chain.
	Create innovation ecosystems for technology development for green and blue growth	Provide a conducive environment for young people to access technology and participate in innovation processes.
	Promote innovation through local and indigenous knowledge systems	Work with local civil society, businesses and grassroots organisations to identify, share and build on local knowledge and experience.

Policy Areas	Actions	Approaches
Improving access to finance	Provide access to finance to enable young people to innovate	Young women and men engaged in enterprise start-ups often face significant hurdles obtaining the finance they require, more so than older people, who are more likely to have a financial history or assets to draw on.
	Improve access to relevant financial services for green and blue enterprises	Innovative financing is needed to direct investments into those economic activities that can enhance green and blue growth (e.g. green finance, sustainability bonds, green bonds, social impact investments).
	Promote financial inclusion for young people	Consider the institutional mechanisms through which young people are excluded from full participation in formal financial systems.
	Direct public investments towards sustainable development	Support projects that encourage innovation and the transformation of the economy and which contribute to the protection of the environment.
	Create incentives for private investments into green and blue growth	Strategically target public finance to attract private capital into green investment through measures such as guarantees, insurance products and incentives, combined with the right policy support.
	Create market-oriented funds for youth-owned green and blue enterprises	New funding mechanisms to increase the access young people have to business finance in the green and blue economies.
	Support market-based transactions for financing green and blue growth	Create opportunities in national and global value chains and the emergence of new, carbon-based transactions.
	Public-private partnership funding schemes for blue and green enterprises	Draw on public and private expertise to scale up investment for green and blue growth.

Policy Areas	Actions	Approaches
Promoting awareness and networking	Raise awareness about entrepreneurship opportunities for young people in the green and blue economies	Draw attention to projects that provide a tangible and motivational boost to young green and blue entrepreneurs.
	Integrate with educational programmes	Education and skills development provide the opportunity for awareness raising among young people.
	Strengthen networks of green and blue entrepreneurs	To support nascent young entrepreneurs and encourage the creation of new business models, products, services and practices.
	Support youth networks	Policy-makers and programme managers should deepen their engagement with existing youth networks and ensure these are closely aligned with all efforts aimed at promoting youth entrepreneurship in the green and blue economies.
	Promote young role models	They can have a profound influence on the career decisions of young men and women and may enhance the desire to become an entrepreneur and contribute to the development of their business.
	Support mentoring networks	Connect young entrepreneurs with experienced business people who can provide practical advice, support and encouragement.

Implementation Steps

<p>Formulate a national youth entrepreneurship strategy</p>	<ol style="list-style-type: none"> 1. Analyse the national policy framework for transforming the national economy and promoting green and blue growth. 2. Recognise the role of young people and youth entrepreneurship in the national policy framework. 3. Integrate youth entrepreneurship in the green and blue economic development strategies. 4. Ensure there is a lead agency for promoting youth entrepreneurship in the green and blue economies. 5. Identify policy synergies between youth entrepreneurship, industry transformation and sustainable development. 6. Assess the ecosystem for innovation and entrepreneurship. 7. Define a clear pathway for specific cohorts of young people to become entrepreneurs in the green and blue economies. 8. Define clear, gender-inclusive measurement indicators for tracking progress.
<p>Optimise the regulatory environment</p>	<ol style="list-style-type: none"> 1. Assess the business environment for green and blue growth and identify priorities for reform. 2. Create incentives to encourage the transformation of the economy from 'brown growth' to green and blue growth. 3. Involve young women and men in the dialogue on legal and regulatory reform. 4. Identify any specific barriers to youth businesses in the green and blue economies.
<p>Enhance sustainable entrepreneurship through education and skills development</p>	<ol style="list-style-type: none"> 1. Assess the educational system's ability to help young people understand that viable business options exist in the green and eco business sector. 2. Ensure the national education and training system is aligned with industry development needs in the green and blue economies. 3. Ensure green and blue issues are incorporated into business management training and advisory services. 4. Create partnerships between education and training providers and employers in the green and blue economies. 5. Create opportunities for lifelong learning that are integrated in curricula and training programmes.

Facilitate technology exchange and innovation	<ol style="list-style-type: none"> 1. Determine whether or not technology development programmes aimed at diffusing sustainable production practices are in place. 2. Ensure new technologies are introduced to improve the efficiency, productivity and sustainability of new enterprises. 3. Establish programmes and facilities to support young people's involvement in innovation processes. 4. Facilitate the creation of networks of youth-owned businesses involved in innovation. 5. Provide support services for innovation in the green and blue economies. 6. Identify and enhance local and indigenous knowledge systems to promote innovative solutions for blue and green growth.
Improve access to finance	<ol style="list-style-type: none"> 1. Identify the specific problems young women and men face when attempting to access finance for their business ventures. 2. Investigate the feasibility of specific financing facilities that can be created to help young entrepreneurs access the finance and investments they require for green and blue enterprises. 3. Design financial inclusion programmes that address the problems experienced by young entrepreneurs. 4. Facilitate the creation of market mechanisms for financing green and blue enterprises that have been established. 5. Work with commercial finance providers to identify new ways of financing youth-owned green and blue enterprises. 6. Promote financial literacy among young entrepreneurs and services to improve financial management in green and blue enterprises.
Promote awareness and networking	<ol style="list-style-type: none"> 1. Create a national campaign to improve awareness among young people of the opportunities for entrepreneurship in the green and blue economies. 2. Support the development of networks of young people interested and involved in green and blue economy ventures. 3. Publicly promote success stories that recognise and celebrate youth achievements in the blue and green economies – including young entrepreneurial role models. 4. Foster mentoring networks that connect young entrepreneurs with experienced business managers and entrepreneurs.

Acknowledgements

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Acronyms

AGRA	Alliance for a Green Revolution in Africa
ANDE	Aspen Network of Development Entrepreneurs
AU	African Union
CAYE	Commonwealth Alliance of Youth Entrepreneurs
DCED	Donor Committee for Enterprise Development
EIU	Economist Intelligence Unit
EU	European Union
GIM	Growing Inclusive Markets (UNDP)
ILO	International Labour Organization
ITC	International Trade Centre
LED	light-emitting diode
MTI	Market Transformation Initiative (WWF)
NGO	non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PPD	public-private dialogue
PPP	public-private partnership
SDG	Sustainable Development Goal
SIDS	small island developing states
SIYB	Start and Improve Your Business (ILO)
SME	small and medium-sized enterprise
TEEB	The Economics of Ecosystem services and Biodiversity
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
WIEF	World Islamic Economic Forum
WIPO	World Intellectual Property Organization
WWF	World Wide Fund for Nature
YLN	Young Leaders Network (WIEF)

The top half of the page features a teal background with a geometric pattern of overlapping triangles. On the right side, there is a photograph of two young women. The woman in the foreground is looking slightly to the right with a neutral expression. The woman behind her is also looking to the right. The overall aesthetic is modern and professional.

01 Introduction: The Challenges

This policy brief provides practical policy advice on how to integrate responses to the multiple challenges facing national economies, the natural environments and young people. It draws from the guidance provided by the United Nations Conference on Trade and Development (UNCTAD 2012) *Entrepreneurship Policy Framework and Implementation Guidance* and the UNCTAD-Commonwealth Secretariat (2015) *Policy Guide on Youth Entrepreneurship* and takes this further to describe practical considerations when promoting youth entrepreneurship to achieve sustainable development. Particular attention is given to the ways young women and men can contribute to the transformation of the economy and promote green and blue growth.

Globally, there were 1.2 billion people aged 15–24 years in 2015, accounting for one out of six people worldwide.¹ By 2030 – the target date for the Sustainable Development Goals (SDGs), which will be discussed later in this document – the global population of young people is projected to grow by 7 per cent to nearly 1.3 billion.

Since the 2008 global financial crisis, the number of unemployed young people has soared to an estimated 73.4 million, representing 12.6 per cent of the total youth population, which is an increase of 3.4 million between 2007 and 2013. Moreover, the proportion of young people not in employment, education or training has increased substantially, reaching almost 16 per cent in countries from the Organisation of Economic Co-operation and Development (OECD) and 20 per cent in Latin America.

A number of international programmes have been established to respond to this challenge and increase youth employment. For example, the International Labour Organization (ILO 2016a) is leading a comprehensive United Nations (UN) effort for the promotion of youth employment worldwide, known as the Global Initiative on Decent Jobs for Youth. This initiative brings together the vast global resources and convening power of the UN and other global key partners to maximise the effectiveness of youth employment investments and assist Member States in delivering the 2030 Agenda for Sustainable Development.²

In Europe, the steady decline in youth employment rates has led to a significant shift towards entrepreneurship, which is included in the objectives of the Europe 2020 strategy (European Commission 2010). This includes Youth on the Move, which enhances the quality and attractiveness of Europe's higher education system by promoting the mobility of students and young professionals. The European Union (EU) emphasises the

role of entrepreneurship in its youth employment package, which includes a youth guarantee, established in 2013 to improve start-up support services for young people. Many of the national youth guarantee implementation plans presented by Member States include start-up support incentives for young entrepreneurs (Escudero and Mourelo 2015).

In addition, the first United Nations Development Programme (UNDP) Youth Global Programme for Sustainable Development and Peace (2016–2020) is a 5-year global programme on youth empowerment, designed to sharpen the organisation's response to the challenges young people face worldwide and boost the implementation of the UNDP Youth Strategy 2014–2017.

While significant progress has been made in poverty reduction and some specific environmental issues (e.g. ozone layer depletion by chlorofluorocarbons), the environmental challenges worldwide are still huge:

- An estimated 1.3 billion metric tons of food – one third of all food produced – is wasted every year while almost one billion people are undernourished and another one billion are hungry.
- Only 20 per cent of final energy consumption is from renewable sources and, despite the technological advances improving energy efficiency gains, energy use in OECD countries will continue to grow by another 35 per cent by 2020.
- Humans are polluting water faster than nature can recycle and purify water in rivers and lakes.
- Land degradation, declining soil fertility, unsustainable water use, overfishing and marine environment degradation are all lessening the ability of the natural resource base to supply food.

The Commonwealth's Blue Charter

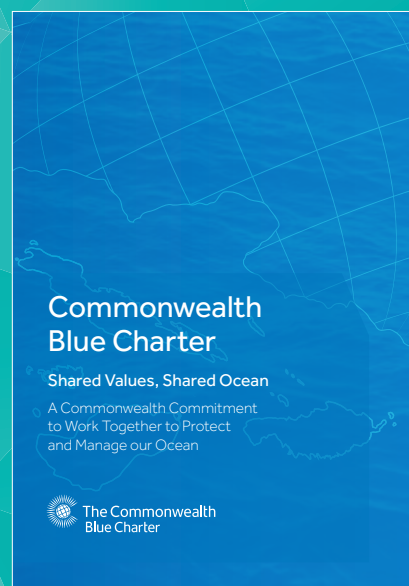
Forty-five of the Commonwealth's fifty-three member countries border the ocean. For most, their ocean space is larger than their land territory. All our futures rely on maintaining the health of the world's ocean, and youth has an essential part to play, as future ocean custodians. Sustainable development of the ocean has become an important component of international commitments, especially the United Nations' Sustainable Development Goals. The Commonwealth's Blue Charter provides a mechanism for Commonwealth member countries to collaboratively work towards achieving such goals. It is inextricably linked to the existing Charter of the Commonwealth and its 16 agreed-upon principles. In particular, Principle 13 commits to "investing in and promoting [...] opportunities for youth employment and entrepreneurship."

While the opportunities are many, encouraging even a few programmes centred on youth will require dedicated long-term leadership from enthusiastic young people and their governments. Recognising this, the Commonwealth's Blue Charter invites countries and eminent persons to come forward as 'Blue Champions,' to lead on themes about which they are passionate. Involvement in these thematic communities of practice will be voluntary; therefore, they will be comprised of those who are serious about sharing experiences, developing expertise, and making lasting progress in these areas.

The range of possible themes applicable to boosting youth and young entrepreneurs in the ocean space is endless. Which ones go forward within the Blue Charter's communities of practices will largely depend upon bottom-up support. Here are just a few examples of the possibilities:

- Establishing 'blue' scholarships, internships and country exchanges, particularly in emerging fields such as blue biotechnology;
- Incentivising marine research centres of excellence to hire young scientists;
- Facilitating business opportunities in tackling threats to marine health, including litter and plastics;
- Developing blue financing mechanisms, including prizes, to support maritime innovation;
- Regenerating coral reefs, mangroves, and other coastal habitats; and
- Promoting sustainable youth-driven tourism practices.

The Commonwealth's Blue Charter can be seen broadly as a youth empowerment vehicle, assisting those countries and their young people who wish to evolve away from the 'brown' (unsustainable) status quo. The health of the ocean will depend upon the youth of today to be tomorrow's engineers, scientists and decision-makers.



- Developing countries, where more than 90 per cent of the world's young people live, are expected to bear the initial brunt of climate change.

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP 2015) describes how investments in access to both green jobs and entrepreneurship can help address youth unemployment. Indeed, support for youth entrepreneurship is found across the Asia-Pacific, where many nations throughout the region have supported initiatives that promote young entrepreneurs.

These changing circumstances create many challenges to policy-making. This policy brief provides a guide to better understanding these challenges, learning from recent initiatives around the world. It offers a broad range of practical considerations to improve the role of public policy in promoting an integrated response to the opportunities and challenges facing young people, the economy and the environment.

A young person is shown in profile, watering plants in a greenhouse. They are holding a green watering can and pouring water onto the foliage. The background is filled with lush green plants and the structure of the greenhouse. The image is overlaid with a teal geometric pattern of overlapping triangles.

02 Youth Entrepreneurship and the Challenge of Sustainable Development

Young people around the world can play an instrumental role in creating the change required to ignite innovations that lead to sustainable development outcomes. Youth entrepreneurship contributes to the social, economic and environmental innovation required to drive sustainable development at local, national and global levels. This requires young people to be brought into the policy-making process as legitimate and significant stakeholders. A key framework for policy-makers in this regard is the SDGs, which guide national policy-making in all fields.

There are several other international agreements that also influence national policy-making relating to environmental protection and sustainable development. These include the 1987 Montreal Protocol on Substances That Deplete the Ozone Layer, which is a landmark agreement that has successfully reduced the global production, consumption and emissions of ozone-depleting substances that contribute to climate change.

The 2015 'Paris Agreement' is a universal climate accord, designed to push the governments of developed and developing nations to commit to a low-carbon future. At the core of the agreement is the 'bottom-up' process of intended nationally determined contributions already submitted to the UN Framework Convention on Climate Change, comprising emissions targets and policies for the 2020–30 period. An important outcome from Paris was the goal of holding the average global temperature increase below 2°C. This was strengthened in the Paris Agreement to 'well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C'³.

In 2017, the UN held the Oceans Conference in New York to support the implementation of SDG 14 and formulated a call for action. This conference affirmed a strong commitment to conserve and sustainably use our oceans, seas and marine resources for sustainable development.

The New Urban Agenda, which was adopted by the UN General Assembly on 23 December 2016, presents a roadmap for building cities that can serve as engines of prosperity and centres of cultural and social wellbeing while protecting the environment. It provides guidance for achieving the SDGs and provides the underpinning for actions by national governments and local

authorities to address climate change in partnership with the international community (United Nations 2017b).

2.1 Promoting youth entrepreneurship through the SDGs

The adoption of the SDGs (Box 1) in 2015 presents a call to action for governments and businesses around the world (United Nations General Assembly 2015). The goals came into effect on 1 January 2016 and guide government development decision-making over the next 15 years. They provide the opportunity for policy-makers to connect youth entrepreneurship to green and blue growth.

The UN General Assembly (2015, para. 55) says the SDGs and their targets are 'integrated and indivisible'. They are 'global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities'. All national governments – from both developed and developing economies – are required to report on their progress. The targets are defined as 'aspirational and global, with each government setting its own national targets guided by the global level of ambition but taking into account national circumstances' (UN 2015). Thus, the SDGs provide a framework for promoting youth entrepreneurship and boosting the contribution young people can make through entrepreneurial and innovative endeavours. There are a number of SDGs of direct relevance to challenges and opportunities of youth entrepreneurship:

Box 1: Sustainable Development Goals

- Goal 1** End poverty in all its forms everywhere
- Goal 2** End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3** Ensure healthy lives and promote well-being for all at all ages
- Goal 4** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5** Achieve gender equality and empower all women and girls
- Goal 6** Ensure availability and sustainable management of water and sanitation for all
- Goal 7** Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10** Reduce inequality within and among countries
- Goal 11** Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12** Ensure sustainable consumption and production patterns
- Goal 13** Take urgent action to combat climate change and its impacts
- Goal 14** Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17** Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Source: UN General Assembly (2015)

Economic growth and diversity through entrepreneurship and enterprise development

A key function of entrepreneurship is to contribute to economic growth and diversity. The efforts of entrepreneurs in starting and growing their firms lead to broader, economy-wide outcomes for the global sustainable development agenda. Goal 8 describes

the need for promoting 'sustainable economic growth'⁴, which includes the promotion of inclusive and sustainable industrialisation, focusing on resilient infrastructure and innovation (Goal 9), and strong support to global business and free trade (Goal 17).⁵ These reforms broaden the opportunities for entrepreneurship.⁶



Economic and industrial transformation

The SDGs support improvements to global resource efficiency in consumption and production (Goal 12) and the decoupling of economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production.⁷ The SDGs also contain targets within Goal 9 for retrofitting industries and adopting clean and environmentally sound technologies and industrial processes. This requires entrepreneurs to integrate environmentally sound decisions into supply chain management systems and promote environmental consciousness among consumers. Entrepreneurs and innovators play a key role in this agenda. Also included are the importance of scientific research and technological development innovation, including universal and affordable access to the internet.

Productive employment and decent work

Youth entrepreneurship is directly related to Goal 8, which describes the promotion of 'full and productive employment and decent work for all' and calls for policies that promote job creation.⁸ It calls for the development and implementation of a global strategy for youth employment and the implementation of ILO's Global Jobs Pact.⁹

Inclusion and redressing inequality

A major theme of the SDGs is the role of economic and social inclusion to reduce inequality and promote sustainability. This includes inclusive economic growth (Goal 8) as well as efforts to end hunger, achieve food security and improve nutrition for women, indigenous peoples, family farmers, pastoralists and fishers (Goal 2). Inclusion is also achieved through equitable, good-quality education and the promotion

of lifelong learning opportunities for all and by increasing the number of young people with relevant technical and vocational skills for employment, decent jobs and entrepreneurship (Goal 4). Goal 10 seeks to reduce inequality within and among countries, by improving the incomes of the bottom 40 per cent of the population and empowering and promoting social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

Women's empowerment

The SDGs also set the framework for supporting entrepreneurship among young women. While women's empowerment is contained within the SDG's drive for economic and financial inclusion, specific measures have also been designed. Support for women's entrepreneurship is a key strategy within this overall approach. Goal 5 focuses on gender equality and the empowerment of women and girls, which includes 'equal rights to economic resources', the ownership and control of land and other property, financial services, inheritance and natural resources. Governments, donor and development agencies, and the broader private sector are encouraged to develop policies, programmes and services focused on nurturing women, including young women, into business. Furthermore, it is

important to develop and apply gender-sensitive indicators when measuring the impacts of entrepreneurship, and entrepreneurship policies and programmes, in order to capture the full extent to which these activities affect the lives and opportunities of women.

Environmental sustainability

Environmental sustainability (e.g. energy production and use, climate change mitigation) underpins the global sustainability agenda. Youth entrepreneurship can respond to the SDGs' call for economic transformation and the decoupling of the economy from environmental degradation. This includes access to affordable, reliable, sustainable and modern energy for all (Goal 7). While the SDGs acknowledge the UN Framework Convention on Climate Change as the primary international, intergovernmental forum for negotiating the global response to climate change, young entrepreneurs can play a key role in bringing new products to market to transform the way energy is produced, distributed and consumed. They can introduce new climate change mitigation technologies and processes to the market and influence society's consumption patterns.



Sector development

The SDGs pay particular attention to achieving its goals through the development of specific sectors. Each of these provides unique opportunities for young entrepreneurs to bring new products, services and processes to market. The sectors include agriculture (Goal 2), energy (Goal 7) and sustainable tourism.¹⁰

Private sector engagement and partnerships

More broadly, the SDGs have opened up the opportunity for the private sector, which include current and emerging young entrepreneurs, to become more engaged in development. This is because of the significant financial and managerial resources business can bring to the development arena, as well as its experience in working with markets. The SDGs make a strong case for increased private investment in development. This presents new challenges to governments, which must consider wide-ranging reforms to open up new opportunities for private sector engagement. The UNCTAD (2015) Action Plan for Private Investment in the SDGs describes this as the need for a 'big push' for private investment. UNCTAD presents a range of policy options for policy-makers at national and international levels for how to implement the SDGs.

2.2 The SDGs and emerging business opportunities

Business models are progressively becoming accountable for environmental targets. A change of paradigm highlights how it is possible to make a profit and build a business by doing something that is also good for the environment and promotes human wellbeing. This new approach combines the force of the private sector and its power of innovation to contribute to the global mission of eco-sustainability and social equity. Within this context,



policy-makers are increasingly called on to promote youth employment with a focus on environmental and social targets.

Viewed from an entrepreneurs' perspective, the SDGs can be seen as increasing costs (e.g. through increased reporting and regulatory compliance) as well as opportunities. However, these costs are diminished by new emerging entrepreneurial opportunities. Hart and Milstein (1999, p. 25) argue that 'innovators and entrepreneurs will view sustainable development as one of the biggest business opportunities in the history of commerce.' In addition, the SDGs improve the quality of development, aligning national development goals and initiatives with global aspirations.

Deana and McMullen (2007) describe the role entrepreneurship can play in reducing environmental degradation and show how 'intelligent public policy' enables 'sustainable entrepreneurship' and how the 'innovative power of entrepreneurship' can be 'captured to build a sustainable world'. Similarly, the SDG Compass (2015) examines the contribution business can make to the SDGs through the prism of the typical value chain. Firms are encouraged to look beyond the assets they control and focus on the opportunities that emerge upstream and downstream in the value chain.



The UN (2017c, para. 17) General Assembly discussion on Entrepreneurship for Sustainable Development recognised that:

harnessing entrepreneurial talents among young people is vital for increasing productive capacities, developing new forms of entrepreneurship focused on information and communications technology, big data, digitalisation, smart cities and creating start-ups, generating full and productive employment and inclusive economic growth, and encourages Member States to integrate youth entrepreneurship strategies and innovative programmes into their national policies, create a nurturing environment for the full realization of the rights and capabilities of young people, and increase investment in micro-, small and medium-sized enterprises, including through impact investment favouring the poorest and most vulnerable, entrepreneurial education, youth capacity-building and information and communications technology.

The UN Economic Commission for Africa (UNECA 2014, p. 1) recommends that African governments capitalise on the potential of Africa's youth: 'Growing up in an increasingly free and fair continent, the young people of Africa are dynamic, forward-looking and best positioned to find innovative solutions to local challenges through the use of science and technology.' Similarly,

the Alliance for a Green Revolution in Africa (AGRA 2015, p. 16) proposes that Africa's young people 'are dynamic, enthusiastic, resourceful, creative, innovative and adventurous' and can lead the way forward in transforming African agriculture. However, Sumberg et al. (2016) argue that care must be taken when ascribing innovative attributes to all young people just because of their age. Indeed, there are other factors that influence the ability of an individual of any age to be innovative and entrepreneurial. There is a wide range of factors influencing a young person's decision and ability to take and succeed in entrepreneurial initiatives.

Entrepreneurship presents a means through which the world's societies and economies can be transformed to become more sustainable. To maximise the role entrepreneurs can play in this, attention needs to be given to improving the conditions for entrepreneurial activity. The SDGs provide a rationale for identifying the obstacles to entrepreneurship and introducing reforms to unleash the potential that entrepreneurship has for realising the global sustainable development agenda. Pacheco et al. (2010) describe two sets of conditions in which sustainable entrepreneurship emerges. The first is where entrepreneurs identify and exploit new opportunities within the current economic structures. The second is where the economic incentive and reward systems are changed to encourage sustainable entrepreneurship and where entrepreneurial activity shifts the economic institutions shaping these activities. They examine this with regard to industry standards, property rights and government legislation and describe how entrepreneurs can engage in networks and collective action to open up new opportunities for sustainable entrepreneurship.

Entrepreneurship development opportunities emerge from two domains: first, from the creation of new products, services and business

models in the green and blue economies and, second, from changes in the way businesses operate across all sectors of the economy. Existing businesses can be encouraged through a range of policy instruments (e.g. regulations, incentives) to adopt more sustainable business strategies and practices.

2.3 Youth entrepreneurship in the green and blue economies

While the SDGs create a framework for policy-makers within the broader concept of sustainable development, more attention can be given to the ways in which youth entrepreneurship can transform industries and markets and contribute to the development of the green and blue economies.

2.3.1 Growing the green economy

A major focus of sustainable development efforts is to promote low-carbon economic development and to support what has become known as green growth. Savage (2014) describes how green growth is a relatively new concept without, as yet, a single definition (see Box 1). Broadly, she says, 'green growth implies alignment between development, environmental

and social improvement by adopting a planning approach that shifts public and private expenditure from business-as-usual towards a green economy path'.

The OECD (2011) divides the green growth agenda into two broad sets of policies: (a) broad framework policies that mutually reinforce economic growth and conservation of natural capital, such as tax and competition policy to increase efficiency and reduce waste, as well as innovation policies; and (b) incentives that put a price on overexploitation of natural resources and on pollution, including a mix of market-based instruments such as environmentally related taxes, together with well-designed regulations and technology support policies, depending on the context.

Entrepreneurs mobilise resources and apply them to the development of new products, services and processes. Along the way, they create jobs and generate wealth. The OECD's (2011) Green Growth Strategy recommends that governments pay close attention to how entrepreneurship and innovation can transform the economy and ignite the green growth. Schaltegger and Wagner (2011) define sustainable entrepreneurship as the 'realisation of sustainability innovations' and consider the conditions under which sustainable

Box 2: Definitions of green growth

Growth that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities (UNEP 2011).

Fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our wellbeing relies (OECD 2011).

Growth that is efficient in its use of natural resources, clean in that it minimises pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters (World Bank 2012).

Growth that can achieve poverty reduction, environmental protection, resource efficiency and economic growth in an integrated way (Green Growth Best Practice Initiative 2014).

Source: Savage (2014)

entrepreneurship and sustainability innovation emerge spontaneously. The ILO (2017) describes 'green entrepreneurs' as people who are 'involved in the production of environmentally friendly products and services or make use of processes that are environmentally friendly'.

Both entrepreneurship and environmentalism, says Anderson (1998), 'are founded on a perception of value' and entrepreneurship is a 'splendid vehicle' for encapsulating social change. Wagner (2012) provides a detailed assessment of the intersection of entrepreneurship, innovation and sustainability. This shows how sustainability requires both radical and incremental innovation at many different levels (i.e. technology, product, process and system) and highlights the role of the entrepreneur.

Promotion of the green economy involves expanding green production and markets, reducing the depletion of natural resources and degradation of ecosystems caused by economic activity, and increasing reliance on low-carbon energy supply to mitigate climate change. UNCTAD (2011) has argued that this transition is not automatic: 'it needs to be supported by development-led policies and concerted actions to ensure outcomes are inclusive across and within countries.' In addition, the 2012 Rio+20 UN Conference on Sustainable Development concluded that green economies take very different forms in response to a country's diverse capital endowments and needs. Thus, green economic policy and investments need to be tailored at both national and local levels.

2.3.2 The blue economy

More recently, specific attention has been given to the blue economy. This concept emerged during the 2012 Rio+20 UN Conference on Sustainable Development and was expounded at the Third International Conference on

Small Island Developing States (SIDS). It recognises the need to maximise the enormous economic potential of the world's oceans and the need to preserve this important natural resource. One common definition of the Blue Economy is defined by the Economist Intelligence Unit (2015) as: 'A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy.'

For many countries, especially SIDS, the potential of the marine economy is much greater than that of the land economy. The global ocean economy is valued at around US\$1.5 trillion per annum, contributing approximately 2–3 per cent to the world's gross domestic product (GDP), according to a study by OECD (2016). Globally, approximately 350 million jobs are linked to the oceans through fishing, aquaculture, coastal and marine tourism, and research activities.

The blue economy concept is about marine economic activity as a driver of sustainable growth and development. The blue economy is a developing world initiative pioneered by SIDS, which is relevant to all coastal states and countries with an interest in waters beyond their national jurisdiction. SIDS have always been highly dependent on the seas for their wellbeing, but the blue economy, while encompassing the concept of ocean-based economies, goes far beyond that (Anon 2014). The Economist Intelligence Unit (EIU 2015, p. 5) describes how governments are playing a key role in driving growth in the blue economy: 'Through new national ocean development plans, countries are turning to the ocean as a "new" source of jobs, innovation and competitive advantage.' Indeed, while the ocean economy is diverse and growing, it 'offers investors an opportunity to apply different strategies to ocean investments at various levels and scales' (Economist Intelligence Unit 2015). Indeed, a report published by

the World Bank in association with the Commonwealth Secretariat, *Toward a Blue Economy: A Promise for Sustainable Growth in the Caribbean* (Patil et al. 2016), estimated that Caribbean waters generated US\$407 billion in 2012 alone.

The African Union (2012) has produced the Africa Integrated Maritime Strategy 2050. This describes how oceans will become an economic force this century, driven by new technologies that make it economically viable to tap marine resources and demographic trends fuelling the search for food security and alternative sources of minerals and energy (UNECA 2016).

The European Commission (2014) describes how innovation can help develop the blue economy in a way that not only fuels 'growth and job creation but also maintains public support for the commercial use of marine resources while ensuring the protection of the marine environment'.

The Commonwealth Secretariat (2016) has called for fundamental changes to the way the world's oceans, seas and coastal areas are managed. It recommends that countries 'embrace new marine-based sectors such as aquaculture, biotechnology and ocean-based renewable energy, while urging governments to improve the way they operate to ensure the survival of global fishing, maritime transport and coastal tourism'.¹¹ 'An investment in the Blue Economy', says Angelique Pouponneau of the Commonwealth Youth Council (in personal communication) 'already provides young people with new aspirations, new dreams and new job prospects'. Young people across the Commonwealth have

also endorsed the blue economy concept and a recommendation was made to use the blue economy concept to create jobs and promote entrepreneurship.'

Under Aspiration 6 of the AU's Agenda 2063 (African Union Commission, 2015, p9), young Africans, both men and women, are identified as the trailblazers of the African knowledge society and as significant contributors to innovation and entrepreneurship: 'The creativity, energy, and innovation of African youth will be the driving force behind the continent's political, social, cultural, and economic transformation.' This has been recognised by UNECA (2016), which identifies the role young people can play in realising the potential of the blue economy.

The UN (2017d) Oceans Conference in New York highlighted the increasing economic benefits to small-scale artisanal fishers. Maximising these opportunities from an ocean-based economy will require a multi-stakeholder approach, with tourism, environment, fisheries, transport and trade, finance, and other ministries working together to promote sustainable development and economic growth. 'Important actions include implementing policies that promote business activity without increasing pressure on fisheries, and improving access to education to foster community development and empowerment and the protection of natural and cultural heritage sites' (UN 2017d).



03 Policy Recommendations: Youth Entrepreneurship for the Blue and Green Economy

Drawing from UNCTAD (2012), *Entrepreneurship Policy Framework and Implementation Guidance*, the UNCTAD–Commonwealth Secretariat (2015) *Policy Guide on Youth Entrepreneurship* identifies six priorities to guide policy-makers. The challenges of green and blue economic growth go beyond a business-as-usual approach to economic and entrepreneurship development and require a shift in the conventional economic and social frameworks used to guide development. The transformation to achieve green and blue growth through youth entrepreneurship requires policy-makers to connect a number of important and varying policy domains:

1. the transformation of 'brown' markets towards green and blue economic growth;
2. the promotion of entrepreneurship and innovation, designed to both support and benefit from the above transformation; and
3. support for youth entrepreneurship to help young men and women successfully engage in new, disruptive and transformational markets.

Thus, policy-makers are required to balance and, where possible, integrate a range of diverse policy objectives.

3.1 Formulating national youth entrepreneurship strategy

Create a national policy framework to transform the economy and promote entrepreneurship

National governments should ensure the policy settings are in place to transform the economy towards a more sustainable base and encourage innovation and entrepreneurship. A national entrepreneurship strategy, tailored to specific conditions, should

Main policy messages

Create a national policy framework to transform the economy and enhance the role of entrepreneurship: establish the policy settings for economic transformation and encourage innovation and entrepreneurship, with specific reference to supporting the role of young entrepreneurs.

Identify the national priorities: identify the priorities associated with transforming the national industrial base towards more sustainable, non-carbon-based systems of production and determine the specific challenges facing young male and female entrepreneurs.

Identify youth entrepreneurship opportunities and challenges: focus policy efforts on the enormous range of opportunities for young, emerging entrepreneurs in the green and blue economies. Ensure youth entrepreneurship strategies contain a chapter specifically dedicated to green and blue growth.

Design an integrated national policy framework for youth entrepreneurship in the green and blue economies: create a clear framework for government and the private sector to work together across many portfolios and sectors, ensuring that global and national environmental challenges are clearly articulated.

Improve the ecosystem for youth enterprise and sustainability: map the current status of youth entrepreneurship and address any gaps or weaknesses in the support provided to youth enterprises.

Identify youth cohorts and define strategies to achieve specific goals and priorities: strengthen the connections between green and blue industry development and youth entrepreneurship, specifying clear target groups or cohorts of young people and their capacity to contribute to economic, social and environmental goals.

Ensure alignment within and across key policy domains and create policy synergies: align policies for economic and social development, green and blue growth, private sector development and entrepreneurship, and youth entrepreneurship.

Designate a lead institution: provide strategic oversight and co-ordination across government and promote co-operation among all relevant public, private and community actors.

Integrating national economic, social and environmental policies (Kenya)

The Government of Kenya has developed a national energy plan that integrates national economic, social and environmental policies in line with the new 2010 Constitution and the national *Vision 2030*. At the sector level, this plan establishes close linkages between the various forms of energy to improve co-ordination. The enabling legislation, the Energy Act, assigned the responsibility for development of indicative national energy plans to the Energy Regulatory Commission. The law encourages the development and use of renewable energy by, among other things, formulating a national strategy for co-ordinating research in renewable energy and providing an enabling framework for increased business investment in the efficient and sustainable production, distribution and marketing of renewable energy.

clearly describe how entrepreneurship is expected to contribute to national development objectives (UNCTAD 2012).

Sustainable development requires a broad development framework designed to decouple the economy from non-renewable energy sources and reduce the impact of growth on the environment. Attention has increasingly been given to how national policies can stimulate private investment in new, sustainable industries. For example, the promotion of new renewable energy suppliers and distributors requires public policies that encourage innovation and incentives to stimulate high levels of private investment in new energy markets. The UN Environment Programme (UNEP 2011, p. 22) suggests that the transition to a green economy requires specific enabling conditions: national regulations, policies, subsidies and incentives, as well as international market and legal infrastructure, trade and technical assistance. Currently, in most countries, these conditions 'are heavily weighted towards, and encourage, the prevailing brown economy, which depends excessively on fossil fuels, resource depletion and environmental degradation' (UNEP 2011). The decoupling of traditional growth patterns requires not only high-level policy direction, but also specific measures to stimulate new enterprise initiatives (Rickerson et al. 2012).

The UN (2015) describes how governments must set the stage for corporate action at national and regional levels: 'It is clear that the greening of the economy will not occur automatically through market mechanisms alone. Among other reasons, this is because a gap exists between current market prices and the real costs of natural resource use and ecosystem services, and between the short-term benefits of ecological resource use and their long-term impacts. As a result, the market is distorted and an ecological deficit is created'.

These broad national and strategic reforms often require high-level government commitment and leadership, best guided by a national vision for planning and development or some other agreed on high-level statement of purpose. Such reforms require regular dialogue with a wide range of economic, social and environmental stakeholders.

The UN (2017d) Oceans Conference underlined the need to integrate Goal 14 and its inter-related targets, which deal with oceans and marine resources, into national development plans and strategies to promote national ownership and ensure successful implementation by all relevant stakeholders. Within this, special attention can be given to young people, as well as to the academic and scientific communities, businesses and industry. The conference recognised



'the importance of gender equality, and the crucial role of women and youth in the conservation and sustainable use of oceans, seas and marine resources for sustainable development' (UN 2017d, para. 9).

Identify the national priorities for green and blue growth

Developing the green and blue economies creates a unique set of challenges within the national development framework. This requires a combined assessment of local and global environmental challenges and an understanding of the priorities associated

with transforming the national industrial base towards more sustainable, non-carbon-based systems of production.

While government policies are based on a clear vision for the future, they should be rooted in an understanding of current realities. This requires a close engagement with the private sector to ensure the right policy signals are provided. Vivid Economics (2014) describes how the levels of private investment are led by the strength and stability of the political economy in responding to climate change, where 'investors require strong policy over the long lifetime of their investments'.

Integrating young entrepreneurs in national policy frameworks (Mauritius)

When preparing its 10-year master plan for the small and medium-sized enterprise (SME) sector, the Government of Mauritius took deliberate steps to ensure the issues young entrepreneurs face were incorporated. This included a survey of 147 young entrepreneurs aged 18–30 years and an assessment of the readiness and inclination of young graduates to take entrepreneurship as a career option.

The plan defines the essential elements of the ecosystem in which entrepreneurs and SMEs operate. It also identifies sectoral and thematic issues that have an impact on the development of the SME sector, which include issues such as the greening of SMEs, and the economic empowerment of women and youth people. Thus, young women and men are treated as important actors in national SME development and their aspirations, needs, constraints and opportunities are incorporated into the national plan

Source: Government of Mauritius (2016)

While gaps in 'green political economy are often the product of complex trade-offs between competing policy goals' (Vivid Economics, 2014, p. 58), national governments need to work with those involved with the green and blue economies to close these.

Identify youth entrepreneurship opportunities and challenges

UNCTAD and the Commonwealth Secretariat (2015) highlight how youth entrepreneurship strategies rely on an assessment of the national socio-economic context and the specific development challenges faced by the country. It is important for governments and their social partners, including the private sector, to clearly identify and prioritise these.

While sustainable development and the promotion of the green and blue economies involves trade-offs with developments in the brown economy, there are enormous opportunities for many current and emerging entrepreneurs. For example, the EIU (2015, p. 16) describes how the 'ocean economy is diversifying, with new forms of economic activity emerging. Investments in the ocean have traditionally comprised those whose returns are linked to the ocean's living "renewable" resources ... as well as those who exploit the ocean's non-living, "non-renewable", resources (including extractive industries, such as dredging and offshore oil and gas)'. The EIU suggests that large industries, such as tourism, coastal development, and shipping and port infrastructure and services, are also reliant on the seas and coasts. Moreover, significant opportunities are emerging from the application of new technologies to harness the ocean's potential as a nexus of resources, including new opportunities arising from the ocean to invest in food, mineral and energy resources.

The UN (2017d) describes important actions for promoting the blue economy as including implementing policies

that promote business activity without increasing pressure on fisheries, improving access to education to foster community development and empowerment, and protecting natural and cultural heritage sites. Fishing technology transfer and dissemination, as well as recognising rights and granting preferential access to coastal fishing grounds and improving market infrastructure, can also help communities to derive maximum benefits from marine resources in their area. In addition, stakeholders point to the importance of expanding the availability of high-quality data as a prerequisite to effective decision-making. SIDS-SIDS collaboration and other South-South collaboration will be crucial as well.

Design an integrated national policy framework for youth entrepreneurship in the green and blue economies

An integrated national policy framework for youth entrepreneurship in the green and blue economies provides a clear framework for government and the private sector to work together. It spans a number of ministerial portfolios and integrates the challenges faced by young people, the environment and the economy.

It is important to specify goals and priorities, and to set environmental targets in accordance with the SDGs. This requires a coherent policy framework that integrates the focus and direction of multiple government ministries, including the environment ministry, to ensure the optimal policy and regulatory environment for green and blue entrepreneurship. Low-emission development strategies can also be used to bridge the public and private sectors with the goal of enabling growth in a given industry or region. Most national governments have committed to the targets of the Paris Agreement, which has national consequences in terms of national economic and industry strategies. Thus, it is important that

Socially inclusive provincial innovation strategy (South Africa)

The provincial government of Gauteng in South Africa has developed a comprehensive innovation strategy to stimulate SME involvement and local community engagement. The strategy targets innovation to advance social inclusion, including by young people and women. The government's innovation policy targets employment creation and sustainable social and economic development. The strategy focuses on community-led innovation to identify alternative economic value chains and community-developed innovation solutions and fosters those solutions through replication and incubation, particularly in the townships. Proposed strategic interventions include the development of networks to exchange information and knowledge, based on open innovation systems; and promotion of high-speed information and communication technology (ICT) access at a household level as a means of fast-tracking innovation.

Source: Green Growth Best Practice Initiative (2014)

national policy responses to global and national environmental challenges are clearly articulated.

Private sector development strategies are a range of policies, programmes and services that governments and their social partners provide to promote economic growth and reduce poverty by building private enterprises. This could be through working with firms directly, or with membership organisations that represent them, or through a range of areas of policy and regulation to promote functioning, competitive markets. These strategies are closely connected to broader economic and social development plans and provide a framework for finding synergies between private sector development and green and blue growth. A private sector development strategy provides an opportunity for the government to target its support towards specific subgroups, such as young people. They provide the basis on which a youth entrepreneurship development strategy can be formulated.

Improve the ecosystem for youth enterprise and sustainability

The UN Secretary General's report on *Entrepreneurship for Development* (UN 2017c, para. 65) highlights the need for policy-makers to build entrepreneurship ecosystems for the

2030 Agenda. Such ecosystems create an institutional framework to nurture and promote enterprise development for sustainability (Moore 1993). Studies describe how high-growth firms flourish in distinctive types of supportive environments (Mason and Brown 2014). In these environments, firms grow faster because they are able to access the inputs they need, benefit from the spin-offs created by other firms, collaborate with others and compete more effectively. The OECD (2011) indicates that sound environmental policy frameworks also drive 'green innovation'.

The state of the youth enterprise ecosystem influences the access young entrepreneurs have to support services and their ability to progress from having a business idea to starting and growing a sustainable business. There needs to be a joined-up approach to supporting youth entrepreneurs, which includes access to business development services (BDS), access to finance, and follow-up and support mechanisms, such as counselling and mentoring.

The current status of entrepreneurship in the country needs to be mapped and the main challenges and opportunities need to be identified. This is best achieved through an assessment of the entrepreneurship ecosystem, with particular attention given to how young people participate in this ecosystem.

Seychelles Blue Economy

The Government of Seychelles, under the leadership of President James Michel, launched the Seychelles Blue Economy concept in 2014 under the leadership of the President James Michel. It focuses on the sustainable development of ocean-based economic enterprises and encourages the formation of new blue economy enterprises, promoting blue economy careers among the young and educating the young and old about the tangible development of the concept in Seychelles. The Seychelles Blue Economy Incubator Programme is a start-up incubator that encourages young, ambitious Seychellois entrepreneurs to develop innovative business ventures that will become leading ventures in the blue economy. The Blue Economy Incubator Programme includes:

- advice on creating a feasible and profitable business plan;
- start-up funding: successful applicants may receive seed funding for the implementation of their business proposal, according to a strict set of criteria (projects will be selected by a committee and funding for their implementation will be sought from donors);
- training sessions and mentorship by technological experts, entrepreneurs and coaches;
- advice and support for setting up a new business, including recruitment and management advice;
- meetings with potential investors to pitch investment proposals.

Source: James Michel Foundation (2016)

The ecosystem dramatically affects the survival, growth and success of entrepreneurial ventures. The entrepreneurial ecosystem nurtures and supports business start-ups and growth, ensuring that entrepreneurs operate on a level playing field, that their rights are protected and that the same rules are consistently applied to all. Some of the components of a supportive entrepreneurship ecosystem include a legal and regulatory framework that encourages certainty, good educational systems and training opportunities that are responsive to the needs of entrepreneurs as well as the needs of their work force. Importantly, entrepreneurs need access to capital and financing and a supportive culture that embraces and celebrates entrepreneurship (Centre for International Private Enterprise 2014).

In South Africa, the national chapter of the Aspen Network of Development Entrepreneurs (ANDE) conducted a mapping and assessment of the

ecosystem for youth entrepreneurship, to identify the main financial, capacity development and other gaps and opportunities.¹² Similarly, Intelicap (2015) has assessed the ecosystem for young entrepreneurs in East Africa, in what has become known as 'Silicon Savannah'. This assessment provides a fresh perspective for decision-makers, from government, donors and service providers to other ecosystem players, and builds on a body of research assessing the African entrepreneurial ecosystem, combining quantitative and qualitative approaches from primary and secondary research.

Identify youth cohorts and define strategies to achieve specific goals and priorities

Connections between green and blue industry development and youth entrepreneurship should be strategically framed with clearly identified cohorts or target groups of young people and an assessment of their capacity to participate in these processes. All policy

Grameen Shakti (Bangladesh)

Approximately 60 per cent of people in Bangladesh do not have access to electricity and only an estimated 12 per cent have electricity access throughout the whole day, making it impossible to effectively study or work after sunset. Grameen Shakti, founded in 1996 with the support of several local government units, helped to install more than 100,000 solar home systems in rural communities, creating employment opportunities while also empowering local women and youth. Grameen Shakti employs local young people as technicians and trained users in home-based trouble-shooting. Ensuring the participation and training of women has also been a particular focus. Grameen Shakti, with continued support from the Government of Bangladesh, is aiming to create 100,000 jobs in renewable energy and related businesses in the coming few years and is considered one of the largest and fastest-growing rural-based renewable energy companies in the world.

Source: UNDP (2013)

and strategy instruments designed to support youth entrepreneurship in the green and blue economies should contain clear goals and target groups. General indicators of progress in economic and private sector development should be disaggregated by gender and age.

Young people's participation in green and blue markets can be enhanced through specific programmes designed for young women and men, as well as through the mainstreaming of programmes and services.

Ensure alignment within and across key policy domains and create policy synergies

Policy integration and coherence is essential for success in green and blue growth. This becomes even more important when considering the support for youth enterprise in these sectors. Ensure alignment within and across key policy domains, including:

- national economic and social development;
- national strategies for green and blue growth;
- private sector development and entrepreneurship; and
- youth entrepreneurship.

The Asia-Pacific Peace and Development Service Alliance (2015) *Kathmandu Call for Action* identifies three important growth sectors: food, water and energy. The call for action says that there are 'many opportunities for youth entrepreneurs to take advantage of and improve management of these sectors', such as through advances in the use of rainwater-harvesting technology by private sector entrepreneurs in order to address water scarcity. Renewable energy has also been a very successful tool in making electricity more reliable.

In Mozambique, the government has instituted the National Development Policy and the National Youth Policy. While the National Development Policy aims to stimulate economic growth by focusing on agriculture, fisheries, industrial diversification, infrastructure, extractive industry and tourism, the National Youth Policy focuses on expanding economic opportunities for youth through employment and entrepreneurship (UN 2016).

The UN Global Compact (2015) has described its efforts in addressing Goal 16 by describing how responsible business contributes to sustainable development at both the micro and macro levels. At the micro level, responsible business integrates principles of corporate responsibility

Formulating national entrepreneurship strategy

Checklist of key questions

- Is there a national policy framework for transforming the national economy and promoting green and blue growth?
- Does this framework recognise the role of young people and youth entrepreneurship?
- Is there a national strategy for supporting youth entrepreneurship in the green and blue economies?
- Is there a lead agency for promoting youth entrepreneurship in the green and blue economies?
- Can you identify policy synergies between youth entrepreneurship, industry transformation and sustainable development?
- Has the ecosystem for innovation and entrepreneurship been assessed?
- Are there clearly defined pathways for specific cohorts of young people to become entrepreneurs in the green and blue economies?
- Are there clear measurement indicators for tracking progress?
- Are gender-disaggregated data regularly collected on youth entrepreneurship in the green and blue economies?

and sustainability into its operations, relationships and governance, making these more transparent, accountable and inclusive, and addressing adverse impacts with which the business might be involved. At the macro level, responsible business promotes accountable institutions and just and peaceful societies by respecting and supporting the rule of law, modelling good business practice and upholding the norms and standards in the areas of human rights, labour, environment and anticorruption.

The UN Development Programme (UNDP) Growing Inclusive Markets (GIM) initiative is a 'global multi-stakeholder research and advocacy initiative that seeks to understand, enable and inspire the development of more inclusive business models around the globe that will help to create new opportunities and better lives for many of the world's poor'. GIM demonstrates how business can significantly contribute to human development by including the poor in the value chain as consumers, producers, business owners or employees ('inclusive business models').

While coherence is important across national government portfolios, it is also necessary at the local level. The UNDP (2013) argues that 'green job creation should become part of the regular business of local government'. It is not a new functional obligation or a new expenditure assignment; local governments are already required to provide public goods and services. 'Facing the challenges posed by climate change', says the UNDP (2013), requires a 're-orientation or re-prioritisation of routine local government functions in terms of planning, regulation and revenue management'.

Designate a lead institution

A lead institution will provide policy and strategic oversight and co-ordination across government and promote co-operation among all relevant public, private and community actors. In its review of best practices in national SME development agencies, the ILO (2016b) recommends these agencies be aligned with the long-term national economic policy, agency objectives should be

aligned with those of other relevant support organisations, and governing boards should contain members of the public and private sector, led by a high-level presidential appointee.

In South Africa, the Western Cape Provincial Authority and the City of Cape Town supported the creation of GreenCape, a development agency that has been a key enabler of green growth and investment at the subnational level (Basson et al. 2016). GreenCape's business support activities build on the green economy, enabling work done in its focus areas. These activities are centred on supporting businesses and investors to remove barriers to business growth and market entry. To this end, GreenCape provides impartial market intelligence on the green economy (focusing on renewable energy, energy services, waste, water and agriculture); an advocacy platform to remove barriers to green economy business opportunities; access to networks of key players in government, industry, finance and academia; skills development in the renewable energy sector; 'industrial symbiosis support' (i.e. free facilitation service to enable businesses to benefit from exchanging underutilised resources, with associated economic and environmental benefits); and strategic green economy projects and targeted projects to remove particular barriers to the uptake of green technologies (Basson et al. 2016).

3.2 Optimising the regulatory environment

Consider the impact of the business environment on innovation and entrepreneurship

Innovation and entrepreneurship can be stifled by poor policy, laws and regulations. Regular assessments of the business environment are required to ensure optimal conditions for private investors, innovators and entrepreneurs.

Many businesses in developing economies face problems with government rules and bureaucracy, which increase costs and inhibit growth. Common examples include problems with insecure property rights, corruption, unpredictable policies and laws, and limited access to public services. While industrial policies and enterprise strategies are used to encourage new industries, such as those in the green and blue economies, the business environment provides the policy, legal and regulatory setting in which businesses start up and expand.

The Donor Committee for Enterprise Development (DCED 2008, p. 2) defines the business environment as 'a complex of policy, legal, institutional, and regulatory conditions that govern business activities'. It includes the administration and enforcement mechanisms established to implement government policy, as well as the institutional arrangements that influence the way key actors operate. Reforms aim to improve the business environment by changing business behaviours in ways that lead to increased levels of investment and innovation, and the creation of more and better jobs. This is done by reducing business costs and risks, and increasing competitive pressures through the entry of new businesses.

Identify sustainability priorities for legal and regulatory reform

Within the broader business environment there are specific legal and regulatory concerns that influence the behaviour of entrepreneurs, innovators and investors in the green and blue economies. Thus, it is important to assess the business environment within the green and blue sectors and identify priorities for reform. This should involve key stakeholders, including the business community and, in particular, young men and women who own and run businesses in these sectors.

Main policy messages

Consider the impact of the business environment on innovation and entrepreneurship: ensure that poor policy, laws and regulations do not stifle entrepreneurship and innovation.

Identify sustainability priorities for legal and regulatory reform: assess the business environment within the green and blue sectors.

Regulate for market transformation towards sustainability: level the playing field for greener and bluer products, phase out antiquated subsidies and stimulate new sustainable markets.

Minimise regulatory hurdles for youth entrepreneurship: assess the legal and regulatory barriers young entrepreneurs face, including those experienced by young businesswomen.

Regulate for transformation: identify and remove regulations and incentives that allow the overexploitation of natural resources and undermine the transition to sustainable development.

Establish inclusive public–private dialogue on regulatory costs and benefits: policy-makers and regulators can learn from the experiences of businessmen and women who are working in new green and blue markets.

Balance regulation and standards with sustainable development objectives: work with the private sector to communicate regulations and help firms identify, acquire and assimilate the technologies needed to meet them.

Build entrepreneurs' confidence in the regulatory environment for green and blue markets: improve policy and regulatory transparency, accountability, impartiality and predictability.

Introduce good regulatory practices and standards: systematically review regulations to determine their suitability for achieving green growth objectives, reducing regulatory risks and creating incentives for more sustainable business practices.

Facilitate and support voluntary standards: work with industry to reduce environmental impacts and improve energy efficiencies through voluntary sustainability standards, ecolabelling and traceability systems.

In a complex and fragmented regulatory environment, all stakeholders may not be able to easily see the big picture. It is probable that changes to more than one law, regulation or procedure will be required in order to achieve meaningful results. Thus, mapping out the current process for business compliance from beginning to end allows stakeholders to see the real impediments and understand the scope of the required reforms (DCED 2008).

Business environment assessments need to go beyond a general review of business conditions to ensure a focus on young women and men and the green and blue economies. Thus, while the

World Bank Group's 'Doing Business' assessments and the World Economic Forum's World Competitiveness Index are useful starts, it is important to go into more detail regarding the factors affecting entrepreneurship and sustainable development. To this end, ILO has produced the Enabling Environment for Sustainable Enterprise Toolkit, which assesses 17 conditions for sustainable enterprises through a variety of survey and secondary data analysis instruments. There are a variety of survey tools, checklists and policy assessment instruments included in the toolkit, as well as guidelines on organising structured dialogue between governments, employers, workers and



community organisations to validate assessment findings and agree on reform priorities (ILO 2016). Mani (2012) proposes a Climate Investment Readiness Index to determine the extent to which countries have addressed the full range of policy-related factors that affect private investment in the renewable energy sector. In contrast, Roberts and Ali (2016, p. 36) describe the framework conditions for growth in the blue economy, which include 'a solid legal framework regarding international waters and good governance at the local and regional levels'.

Regulate for market transformation toward sustainability

The UNEP (2011) argues for a redoubling of government and private sector efforts to engage in economic transformation. For governments, this includes levelling the playing field for greener and bluer products by phasing out antiquated subsidies, reforming policies and providing new incentives, strengthening market infrastructure and market-based mechanisms, redirecting

public investment and greening public procurement. The Technopolis Group (2017) describes how subsidies reform. While this might lead to negative short-term effects on production, consumption and employment, they have to be weighed against the positive long-term effects of levelling the playing field and reducing the barriers to entry to green production. Harmful and distortive subsidies can drive overexploitation of natural resources.

Stimulating new market opportunities and transforming national economies for green and blue growth requires new legal and regulatory instruments designed to crowd in new investments and encourage entrepreneurship. The regulatory environment plays a key role in stimulating private sector investment into new initiatives designed to ignite green and blue growth. This goes beyond simply reducing red tape and unnecessary or overly costly or burdensome regulation. It includes the introduction of new regulations and incentives designed to encourage investment, entrepreneurship and innovation.

Akhtar (2014) describes how smart incentives can encourage sustainable development practices in South Asia. For instance, incentives for the use of recycled paper in India have encouraged the production of recycled paper as a source of livelihood for millions of people in the informal sector. Thus, to 'reduce carbon footprints and dependence on imports, business enterprises need to go beyond business-as-usual models to more creative use of technologies to generate wealth and move towards low-carbon pathways' (Akhtar 2014).

Minimise regulatory hurdles for youth entrepreneurship

In some cases, young entrepreneurs may face specific legal and regulatory barriers. These may be formal barriers contained in the law (e.g. age constraints) or they may be customary. Indeed, there are many additional constraints that businesswomen, including young businesswomen, experience in business environments compared with businessmen (see DCED 2016). It is useful to assess the business environment for young entrepreneurs and identify these constraints.

Establish inclusive public–private dialogue on regulatory costs and benefits

Legal and regulatory reform requires dialogue between policy-makers, regulators and the business community. Public–private dialogue (PPD) comes in many forms: it can be structured or ad hoc, formal or informal, wide ranging or focused on specific issues. It can be initiated by forward-thinking governments, frustrated entrepreneurs or third parties, such as international donor agencies.

PPD can take place at local, national or international levels. It can be organised by industry sector, cluster or value chain, or it can cover cross-cutting economic issues. Dialogue implies regular contact between private and public sectors –

sometimes because the private sector wants to influence a particular policy or particular decision, but often just to ensure that each party understands the other. This is important not only because it can provide advance notice when the public sector is thinking of regulating something but also because there are channels of communication already established that can be used to ensure that each can quickly understand the position of the other.

Balance regulation and standards with sustainable development objectives

The UN, UNEP and UNCTAD (2012) describe how the rise of environmental standards has major implications for developing country exporters. They advise governments to focus on helping exporters meet these standards, working with the private sector to communicate the content of regulations and helping firms identify, acquire and assimilate the technologies needed to meet them. Governments can also help build accredited national or regional capacity to test and certify goods as compliant and can design domestic standards that are not too far from those required internationally, which would help build up private sector capacity to export successfully to demanding key markets and result in less local pollution, resource use and waste. However, at the international level, the plethora of product energy performance standards, testing procedures and labelling requirements used in different markets creates a barrier to export. Harmonising these standards would thus be a huge boon, in particular for small and medium-sized exporters.

Build entrepreneurs' confidence in the regulatory environment for green and blue markets

Confidence is a critical prerequisite for attracting private investment into new markets. Policy-makers can

Regulatory reform for new green technologies (South Africa)

In the Western Cape Province of South Africa, GreenCape supports regulatory reform for new green technologies. Many of the barriers experienced in the green economy result from the disruptive nature of green technologies. Rapidly changing fundamental economics of products and services require corresponding policy and regulatory changes. Among other things, governance structures, infrastructure planning and regulations may not have made provision for, or kept pace with, the changes and requirements for green technologies. GreenCape assesses the roles of these technologies and the need for regulatory reform.

Source: Basson et al. (2016)

improve the policy, legal and regulatory framework for green and blue growth to increase investor confidence. This includes reforms that improve transparency, accountability, impartiality and predictability. While environmental regulation has existed for many years, the focus here is on regulations that stimulate private investments into new green and blue markets.

Introduce good regulatory practices and standards

UNCTAD (2012) described how a sound regulatory framework is one that operates based on predictability and transparency, as well as proper enforcement mechanisms. It is essential to emphasise the importance of the quality of regulatory enforcement.

The OECD and its members promote the use of regulatory best practices, designed to improve the effects of the regulatory system.¹⁵ Within the

green and blue economies, good regulatory practices and standards build confidence and provide clear directions for investors and entrepreneurs. For example, the Government of Chile (2013) National Green Growth Strategy describes how all regulatory instruments will be systematically reviewed to determine their suitability for achieving green growth objectives, including considerations of cost and benefits.

The OECD (2011) provides an overview of the strengths and weaknesses of using regulations, standards, taxes and subsidies to support green growth. Institutional, legal and regulatory reform is an important element in enterprise development for sustainability for two reasons. First, good laws and regulations create an enabling environment in which private investors can act, when they are transparent and reduce risk. Second, reforms can include the introduction of incentives to encourage investors to invest in specific areas. Legal and

Area 2: optimising the regulatory environment

Checklist of key questions

Has the business environment for green and blue growth been assessed? Is there a programme of action for reform?

Are there incentives in place to encourage the transformation of the economy from brown growth to green and blue growth?

Have young women and men been involved in the dialogue around legal and regulatory reform?

Are there specific barriers to youth businesses in the green and blue economies?

Have new, voluntary ecostandards been introduced?

regulatory instruments can be used to entice investment into new sustainable technologies. Consistent with this approach, the Asia-Pacific Peace and Development Service Alliance (2015), in the *Kathmandu Call for Action*, describes how, with the right incentives, young people 'can realise and maximise the potential in their own country and create a platform for sustainable economic growth'.

Facilitate and support voluntary standards

Beyond regulation, there are other instruments to stimulate entrepreneurship leading to sustainable outcomes. The OECD (2011) claims that 'not every situation lends itself to market instruments. In certain cases, well-designed regulation, active technology-support policies and voluntary approaches may be more appropriate or an important complement to market instruments.' Industry standards that reduce environmental impacts and improve energy efficiencies are important, as are tax incentives and subsidies that stimulate new investments into emerging green technologies and markets.

Attention has increasingly been given to the role of voluntary standards in promoting green growth. In 2009, the World Wide Fund for Nature (WWF) launched its Market Transformation Initiative (MTI), aimed at promoting more sustainable production and trade of 'soft' commodities. The MTI focuses on 15 commodities with the greatest impacts on biodiversity, water and climate, particularly in the most important places for conservation. The overall objective of the MTI is for 25 per cent of the global production of WWF's 15 priority commodities to be meeting credible standards by 2020. One of these priorities is the cotton value chain. The WWF Better Cotton Initiative was formed as part of a roundtable

discussion with representatives from non-governmental organisations (NGOs), academia, governments and industry. Large retailers in particular play a large part in making the initiative successful. WWF's work on the MTI shows how voluntary standards can be a powerful mechanism for supporting green growth in cases where government regulation may not be as successful (Technopolis Group 2017).

Environmental labelling has been used to provide reliable information to consumers who are demanding more sustainable products. It also gives providers an incentive to develop products that have a smaller impact on the environment and to differentiate themselves from competitors in the national and international markets.

The UN (2017d) describes how promoting the blue economy should include voluntary sustainability standards, ecolabelling and traceability systems for wild catch and aquaculture. This is in line with growing consumer demand for sustainable, fair trade, organic and bio-trade products. Seafood production certified under global sustainability initiatives grew 40-fold from 2003 to 2015 and now represents more than 14 per cent of global production. Indeed, these standards are becoming an entry requirement for some developed country markets.

3.3 Enhancing sustainable entrepreneurship education and skills development

Build the capacity of young entrepreneurs to succeed in green and blue markets

Education and skills development are central to the development of successful youth entrepreneurship. However, this issue is particularly important when the challenges of sustainable development and green and blue growth are considered.

Main policy messages

Build the capacity of young entrepreneurs to succeed in green and blue markets: support the development of entrepreneurial skills, attitudes and experience through education and training.

Link education and training to green and blue growth strategies: ensure young women and men develop the skills and experience for entrepreneurship in the green and blue economies.

Develop sustainable entrepreneurship curricula: ensure trainers and teachers of entrepreneurship education and entrepreneurship programmes have practical knowledge and experience of entrepreneurship and deliver training in an experiential manner.

Embed entrepreneurship in the education systems: give students at all levels the opportunity to learn about and experience entrepreneurship for sustainable development.

Create partnerships between education and training providers and the private sector: increase the opportunities for collaboration between the education system and industry.

The ILO (2017) suggests that green entrepreneurs, 'like any other entrepreneurs, need to possess certain characteristics to be successful', namely passion, goal-orientation, decision-making, risk-taking, ability to handle stress, ability to access to social support, financial endowment and business management skills.

These characteristics can be developed in young people through education and skills development policies and programmes. Education and skills development underpin the capacity for youth entrepreneurship in the green and blue economies, improving the potential for young women and men to engage in entrepreneurial endeavours and to maximise the commercial opportunities that stem from sustainable development.

Link education and training to green and blue growth strategies

Education based on creative and critical thinking is the key to encouraging and advancing youth entrepreneurship.

This is demonstrated by 'youth focused entrepreneurial classes and camps in urban areas supported by universities and the private sector' (Asia-Pacific Peace and Development Service Alliance, 2015). The results of these camps have been mentor-based relationships with business owners and the creation of youth-led businesses in Nepal (Asia-Pacific Peace and Development Service Alliance 2015).

The Government of the Republic of Korea has invested in green education policies for university students by

Educating young people on ocean sustainability (Grenada)

Plans are under way in Grenada to establish a Blue Growth and Oceans Governance Institute to make Grenada a global example of blue growth as an ocean state. It will house many of the leading global ocean research centres and promote its vision to optimise the coastal, marine and ocean resources around the Caribbean. In addition, Grenada has joined Dominica and Marshall Islands to promote a new initiative called We are the Oceans, dedicated to educating young people around the world about ocean sustainability and making it part of every school's curriculum by 2030.

Source: Patil et al. (2016)

Education entrepreneurship ecosystem (South Africa)

In March 2015, the South African chapter of ANDE conducted a mapping and assessment of the education entrepreneurship ecosystem. This included a wide range of respondents, from public and private funders and capacity development providers to academics and 'edupreneurs'. The aim was to come up with collaborative actions to strengthen the ecosystem. The discussion, which covered five topics from access to finance to infrastructure and enabling technologies, focused on direct instruction models (predominantly low-fee private schools) and ed-tech entrepreneurs.

Source: ANDE (n.d.)

formulating a skills development and education policy in the green economy. The government also provides support for vocational training with industry and youth education and public awareness-raising initiatives. The Republic of Korea faces several challenges, including the lack of a national information infrastructure for anticipating and co-ordinating green jobs and skills requirements. With many green technologies and innovations scaling up from early stages, the country faces shortages of experts and vocational trainers in the field (Green Growth Best Practice Initiative 2014).

The UNECA (2016) describes how education and training institutions should be established to build the capacity of the blue economy. The AU, for example, stresses that states should incorporate the importance of their respective maritime and aquatic zones as part of their geographical territory into their education systems at all

levels. Moreover, the AU is establishing a Scientific Centre of Excellence for ocean-related skills development.

Awareness raising must also take place among the priority areas for sustainable development. Many young people are still unaware of blue and green growth strategies in their countries and regions. This will allow young entrepreneurs to better identify gaps in the market and new opportunities for blue and green enterprise development. New tools and services for lifelong learning should be developed, including the use of massive open online courses. These services can also be linked to the use of technology to increase the accessibility of education and training programmes for the strengthening of green and blue economies.

Develop sustainable entrepreneurship curricula

Many young people are unaware of the growing opportunities for entrepreneurship in the green and blue

Young Fellows Programme on the green economy (Vietnam)

The Government of Vietnam, with the support of German technical co-operation and guided by the National Green Growth Strategy, supports human capacity development for green growth. This includes the long-term Young Fellows Programme on the green economy, which is implemented by a consortium of international consulting firms. It offers experts and management staff the chance to attend residential courses of varying duration in Berlin as well as workshops in Vietnam. Moreover, an e-learning course for experts is also being planned.

Source: GIZ (n.d.)

Youth business and environmental entrepreneurship training programme (Tanzania)

In the Tanga Region in northeast Tanzania, the Lushoto Youth Development Network was established to promote long-term investment in youth in Lushoto so they can support their families and communities, while contributing to the sustainable development of the Lushoto economy, protecting the endemic biodiversity. The Youth Business and Environmental Entrepreneurship Training programme is one of the cornerstones of the network's activities, laying the groundwork for the network to enable youth to be a force within the community. The training programme provides entrepreneurial and business planning training, environmental entrepreneurship training and information on livelihood opportunities and planning for long-term achievement of personal goals.

Source: Global Giving Foundation (n.d.)

economies. For example, Schick et al. (2004) find that start-up entrepreneurs in Germany are not fully aware of the potential market opportunities that exist for environmentally friendly businesses. Therefore, they argue, it is necessary to draw the attention of entrepreneurs to successful best-practice examples in their respective industries. Indeed, 'the willingness to follow successful examples might be more promising with start-ups than with established business enterprises' (Schick et al. 2004). Similarly, when assessing the business environment for youth entrepreneurship in Mozambique, Finnegan (2016) describes the need to ensure that trainers and teachers of entrepreneurship education and entrepreneurship programmes have practical knowledge and experience of entrepreneurship and deliver training in an experiential manner. In contrast, in Nepal, young people were found to 'have a great opportunity to change

their mind-set concerning risk taking and thinking outside of the normal cultural conventions in regard to youth entrepreneurship' (Asia-Pacific Peace and Development Service Alliance 2015). The government as well as the private sector 'can facilitate educational and vocational trainings and programmes based on youth entrepreneurship promotion and increased access to resources such as technology' (Asia-Pacific Peace and Development Service Alliance 2015).

The AU's Agenda 2063 proposes the strengthening of technical and vocational education and training through scaled-up investments. These include the establishment of a pool of high-quality technical vocational education and training centres across Africa, greater links with industry and improved labour market alignment, with a view to developing skills and promoting employability and entrepreneurship

Green Industry Platform (China)

The Green Industry Platform promotes greater dialogue between governments and business on how to catalyse, mobilise and mainstream action on green industry issues around the world. In 2014, the Platform's Women in Green Industry Chapter produced a series of case studies of successful women involved in green enterprises. These include Chen Chunhong, chairwoman and chief executive officer of the Yiyuan Environmental Group, which employs 37 people and makes toilets, whose patented technology can save up to 83 per cent of water compared with conventional 6-litre models.

School environmental clubs (Ghana)

The Ghana Cocoa Board, with support from the UNDP, has organised an inter-schools quiz competition for environmental clubs in the Asunafo North Municipality. The aim was to increase knowledge and understanding of climate change and its impact on the environment and to promote good environmental practices among the young. The programme involves an establishment of environment clubs in schools to help strengthen the ability of students and their teachers through training programmes and school-based environmental activities, such as model farms, landscaping and tree planting on school compounds, and activities in their local communities. A representative of the school pupils, Rockson Darko from Kumaho M/A Junior High School, showed appreciation for having the environmental clubs in their schools. He said, 'the programme is helping us to learn more about good environment practices and climate change and its related impact on the environment as well as actions to take to lessen the effect'.

Source: UNDP (2016)

among young people and closing the skills gap across the continent. This is also the case with Africa's Integrated Maritime Strategy, which seeks to expand knowledge and access to quality early childhood, primary and secondary education in the vocational fields of the blue economy (African Union 2012).

In India, the Skill India Programme, which is supported by the Ministry of Skills Development and Entrepreneurship, aims to harness the potential of young people. The programme's support for 'Jan Dhan', a national programme for

financial inclusion, has led to 115 million more people now holding bank accounts (UNESCAP 2014, 2015).

The International Trade Centre (ITC) has developed a Youth and Trade Programme, which delivers specifically on SDG 4 (i.e. skills for entrepreneurship) and SDG 8 (i.e. decent work and inclusive growth). This programme recognises that 'increasing the income opportunities available to young entrepreneurs, especially with trade, is good for future economic growth and inclusiveness' (INTRACEN n.d.). In order for youth-owned businesses to internationalise

Area 3: enhancing sustainable entrepreneurship education and skills development

Checklist of key questions

Does the educational system help young people understand that viable business options exist in the green and ecobusiness sectors?

Is the education and training system aligned to industry development needs in the green and blue economies?

Are green and blue issues incorporated into business management training and advisory services?

Are partnerships in place between education and training providers and employers in the green and blue economies?

Are opportunities for lifelong learning integrated in curricula and training programmes?

and grow, the programme strengthens the environment in which young entrepreneurs operate and the level of assistance they receive. To this end, it supports trade and investment support institutions to provide an improved service offer to young entrepreneurs, while helping policy-makers consider the youth dimension in trade competitiveness strategies and promoting increased competitiveness among young entrepreneurs.¹⁴

UNDP (2013) proposes that environmental public employment programmes include components that facilitate the transition of young people to more permanent employment in order to ensure sustained success. One option it proposes is to establish a link between these programmes and existing training programmes with the aim of providing young people with targeted skills and environmental awareness so that they will be able to identify entrepreneurship opportunities in the field of environmental conservation and rehabilitation.

Embed entrepreneurship in the education systems

The ILO's Know About Business global training programme has been used in various educational settings to help young people understand what a business is and how it contributes to social and economic growth (de Rezende and Christensen 2009). In 2017, the ILO produced the *Green Business Booklet* to support the creation of green businesses and the greening of existing businesses. Green business is considered vital in contributing to green jobs, decent work and the development of sustainable solutions to climate change and other environmental challenges. The manual is designed for use in conjunction with the ILO's Start and Improve Your Business (SIYB) programme. SIYB is a management training programme that builds on more than three decades of experience. It helps entrepreneurs to start and

improve micro and small businesses as a strategy for creating more and better employment for women and men. The *Green Business Booklet* brings a green angle to the SIYB programme, enabling entrepreneurs to make a positive contribution to the environment by setting up and running profitable and sustainable businesses. It helps potential entrepreneurs to come up with a viable green business idea and to develop a business plan from a green perspective and guides existing entrepreneurs on ways to green their business.

Create partnerships between education and training providers and the private sector

Partnership increase the opportunities for collaboration between the education system and industry. Thus, it is important to engage the private sector in the development of sustainable entrepreneurship skills and to collaborate wherever possible to promote green and blue initiatives. The UNECA (2016) describes the need to promote equitable benefit sharing throughout the value chain and work with small-scale producers in local communities, such as fishers and farmers, to establish new market linkages emerging from the blue economy.

Within the framework of the European ERASMUS+ project, known as 'This Is a Green's World', the Institute of Entrepreneurship Development in Greece promotes green entrepreneurship as an opportunity to increase youth employment. The institute organised specialised seminars to provide education and training to young people on green entrepreneurship. This includes the preparation and assessment of business plans (IED 2016).

3.4 Facilitating technology exchange and innovation

Nurture innovation and the development of new technologies

New technologies and innovation are fundamental to the transformation required for green and blue growth. While there are new markets to be found in green and blue technologies, there is also scope for new forms of technology to enable and facilitate the development of new low-carbon industries. Indeed, the Asia-Pacific Peace and Development Service Alliance (2015) argues that 'technology is not only a growth sector' but also 'plays an important role in gathering information to support entrepreneurial pursuits regardless of location', aiding the dissemination of information to rural areas. This information transfer has improved through the exponential growth of mobile phones and could be enhanced as the infrastructure for telecom and reliable electricity improves.

Klewitz and Hansen (2014) describe three kinds of SMEs in relation to the innovation of products, services, practices and business models: (1) 'resistant SMEs', which ignore sustainability or environmental-related pressures; (2) 'anticipatory SMEs', which time their innovation strategies

to anticipate future innovation opportunities; and (3) 'innovation-based SMEs', which proactively seek innovative solutions to environmental and social challenges to realise competitive advantages. Taking this analysis further, Klewitz and Hansen (2014) describe 'sustainability-rooted SMEs', in which the business model builds on the triad of the environmental, social and economic variables to contribute to the sustainable development of markets and society. These SMEs begin to change their innovation processing and introduce innovations that lead to radical new products, processes and organisational changes. Sustainability-rooted SMEs can successfully unlock dominant technologies and institutional structures to effect change and transformation at an industry level.

The UN, UNEP and UNCTAD (2012) highlight that the central role of technology is supporting the structural transformation needed to support green growth. Because most developing countries will be 'technology followers', there is a need to increase international co-operation and collaboration on research and development in all areas relevant to green growth and accelerate the transfer of those technologies to developing countries through open innovation systems and publicly financed innovations, as well as through global demonstration programmes.

Main policy messages

Nurture innovation and the development of new technologies: encourage young entrepreneurs to become more competitive through new technology.

Promote the development of green and blue technologies by and for young people: support young people's involvement in the technology innovation value chain.

Create innovation ecosystems for technology development for green and blue growth: provide a conducive environment for young people to access technology and participate in innovation processes.

Promote innovation through local and indigenous knowledge systems: work with local civil society, businesses and grassroots organisations to identify, share and build on local knowledge and experience.

E-waste management (Cambodia)

In Cambodia, the UN Industrial Development Organisation (UNIDO) project 'E-waste management in Cambodia', which was launched in 2009, aims to create employment opportunities and encourage more effective e-waste management. E-waste is the fastest-growing stream of waste in Cambodia, and Samsung is a leader in consumer electronics and ICT products in the country. The programme supports vocational training in repair services and e-waste treatment in the form of technical workshops, curriculum development exchanges, training of trainers and study tours for disadvantaged youth, local trainers and experts from the private and public sector. In addition to financial resources, Samsung contributed technical know-how through the provision of experts and equipment. While the programme aligned with Samsung's social responsibility strategy, it also presented a compelling long-term business case for the company. The development of strong local supply chains is of strategic importance to Samsung in Cambodia, while further strengthening Samsung's image as a responsible corporate citizen in the region. Moreover, investing in capacity building improves customer service.

Source: DCED (2014)

knowledge-sharing platforms, and a global database on freely available technologies and best practices in licensing. They call for a global technology fund to support knowledge creation and dissemination as a public good, while providing technical assistance in building technology efforts and human capital formation.

Promote the development of green and blue technologies by and for young people

In 2013, the World Intellectual Property Organization (WIPO) established WIPO GREEN, an interactive marketplace that connects technology and service providers with those seeking innovative solutions. WIPO GREEN consists of an online database and network that brings together a wide range of players in the green technology innovation value chain and connects owners of new technologies with individuals or companies who might be looking to commercialise, license or otherwise distribute a green technology. Thus, WIPO GREEN seeks to accelerate innovation and the diffusion of green

technologies, while contributing to the efforts of developing countries in addressing climate change.¹⁵

In Kenya, ILO's Youth Employment for Sustainable Development project engages youth unemployment in public works. The aim of the project is to create and develop some 130 micro and small enterprises owned by young men and women, who will be trained in labour-intensive infrastructure development and maintenance as well as the use of resource-efficient cobblestone paving and *do-nou* brickmaking technologies.¹⁶

infoDev (2013) recommends that policy-makers support the matching of financing to end-user capability and stream of benefits to reduce the upfront costs of switching or adoption: 'Partner with locally established actors in the social economy to extend the community-level presence' of institutions. For example, advanced clean cooking stoves have been introduced through demonstration projects to show how clean technology innovations would produce a profit.

Table 1: Key sectors and technologies for green growth innovation

Sector	Examples of technologies
Electricity access	Smart power grids Indoor cooking stoves using renewable energy (e.g. solar, wind) Off-grid technologies (e.g. local wind turbines)
Water management	Desalination plants Wastewater treatment facilities
Climate change and reducing emissions	Mitigation technologies: Smart power grids Renewable energy technologies (e.g. wind, solar, geothermal, marine energy, biomass, hydro power) Electric and hybrid vehicles Carbon capture and storage Adaptation technologies: Higher-yield seeds (for more arid and saline soils) Drought-resistant crops and cultivation practices Climate-resistant infrastructure (e.g. sea walls, drainage capacity, water, forest and biodiversity management)
Transport	Bus rapid transit Low-emission vehicles and fuels (e.g. biogas, hybrid and plug-in electric vehicles)
Building energy efficiency	Smart power grids and smart meters Thermal insulation Energy-efficient lighting (e.g. energy-efficient compact fluorescent lamps, electroluminescent light sources) Energy-recovering stoves using thermoelectric generators
Agriculture	Genetically modified crops Mechanical irrigation and farming techniques

Source: Hultman et al. (2012)

Lighting Africa

The Lighting Africa Initiative is a joint programme of the World Bank and International Finance Corporation and is aimed at helping develop commercial off-grid lighting markets in sub-Saharan Africa. With the objective of providing safe, affordable and modern off-grid lighting to 2.5 million people in Africa by 2012 and to 250 million people by 2030, the programme is mobilising the private sector to build sustainable markets in Kenya, Ghana, Tanzania, Ethiopia, Senegal and Mali.

Source: Lighting Africa Initiative: <https://www.lightingafrica.org>

Using local culture for sustainable fishery management (Madagascar)

In response to declining local octopus populations, community leaders in the coastal village of Andavadoaka, Madagascar, sought to regulate harvesting practices. With guidance from Blue Ventures, a UK-based NGO, the village authorities created a trial 'no-take zone' in 2004 where octopus hunting was banned for a period of 7 months. Enforcement was rooted in the tradition of *dina*, or local codes of conduct, which are common throughout Madagascar. The use of a *dina* meant that the regulations that governed the use of the no-take zone were rooted in local custom.¹⁹

The result was an increase in the mean weight of octopuses caught by around 50 per cent, prompting many neighbouring villages to ask Andavadoaka for support in creating no-take zones in their own near-shore waters. An inter-village organisation was created to assist these villages, and ultimately 23 villages came together in 2006 to form the Velondriake Locally Managed Marine Area, containing both temporary and permanent no-take zones in which fish, mangroves and other marine organisms are conserved.

In terms of direct income generation, Blue Ventures has employed aquaculture farmers in two villages, octopus data collectors in 10 villages and family planning counsellors in all 25 villages within the region. Income gains have also resulted from the improved catches now available to local fishers. The revenue from the increased number and weight of octopuses accrues directly to fishers. Further income-generating activities will be encouraged with the development of the area as an ecotourism destination.

Source: UNDP (2012)

Create innovation ecosystems for technology development for green and blue growth

Many young people are at the forefront of technology development around the world. In Nairobi, Kenya, for example, youth technology-based start-ups

are flourishing. Young entrepreneurs have launched new technology-based e-commerce ventures, such as M-farm and EcoPost.¹⁷ In 2010, iHub was launched to support a local technology innovation culture. Much can be gained

Area 4: facilitating technology exchange and innovation

Checklist of key questions

Are technology development programmes aimed at diffusing sustainable production practices in place?

Are new technologies being introduced to improve the efficiency, productivity and sustainability of new enterprises?

Are there programmes and facilities supporting young people's involvement in innovation processes?

Are there networks of youth-owned businesses involved in innovation?

Is there support for innovation in the green and blue economies?

Are local and indigenous knowledge systems being utilised to promote innovative solutions for blue and green growth?

from providing a conducive environment for young people to access technology and participate in innovation processes.

Moore and Manring (2009) highlight the importance of small firms working in close networks. They describe how networked SME strategies for sustainable supply chain management offer opportunities for better economic performance. Compared with large firms, smaller SMEs can make use of the 'creative destruction effects', which accelerate within an increasing global marketplace. These firms can take full advantage of clean technologies and resource efficiencies. Indeed, 'SMEs have demonstrated the ability to thrive in these new spaces' (Moore and Manring 2009). As a result, 'real and lasting systemic changes can only be achieved through co-ordinated global efforts, and this will necessitate collaborative participation from public, private, and non-governmental organizations' (Moore and Manring 2009).

The Digital Opportunity Trust is a relevant example of a network of young people that focuses on innovation and technology.¹⁸ The trust is a youth-led movement of innovators with the tools, knowledge and networks to create opportunities and transform their communities. It supports young people to become innovators and leaders, and to create and apply digital solutions that have positive impact in their communities.

Hultman et al. (2012) describe how innovation for green growth can be characterised as frontier, adaptive or absorptive. Frontier innovations are novel solutions; they have not yet been introduced to the world and are typically adopted through research. Adaptive innovations are modifications to existing technology to make them more useful in alternative situations. Absorptive innovation refers to changes to an institutional environment that make the transfer, successful implementation of and learning from frontier and

adaptive innovations easier. They describe how several sectors have emerged in recent years as testing grounds for green growth innovation, with new technologies continually in development. Table 1 provides some examples of these.

Promote innovation through local and indigenous knowledge systems

Many local communities have hidden resources that can be tapped to support innovation and entrepreneurship. Policy-makers can work with local civil society, businesses and grassroots organisations to identify, share and build on local knowledge and experience.

The Equator Initiative brings together the UN, governments, civil society, businesses and grassroots organisations to recognise and advance local sustainable development solutions for people, nature and resilient communities. It seeks to recognise the success of local and indigenous initiatives, create opportunities and platforms to share knowledge and good practices, inform policy to foster an enabling environment for local and indigenous community action and develop the capacity of local and indigenous initiatives to scale up their impact. The Equator Initiative supports Equator Dialogues, which is an ongoing series of community-driven meetings and exchanges designed to help people share experiences, develop capacities and influence policy. The Equator Initiative also works with partners to identify, document and analyse the success factors of local best practice and to catalyse ongoing peer-to-peer learning, knowledge exchange and replication of best practice.

3.5 Improving access to finance

Lack of access to finance inhibits young people's ability to innovate

Many young women and men face problems accessing the financial services they require to start or expand a business.

The UN Secretary General's report on *Entrepreneurship for Development* (UN 2017c, para. 65) highlights the need to address the problems young entrepreneurs face in obtaining the finance they require for their business. Indeed, young women and men engaged

in enterprise start-ups often face significant hurdles obtaining the finance they require, more so than older people, who are more likely to have a financial history or assets to draw on. These hurdles become even greater when the young person is entering new, untested, green and blue markets.

Improve access to relevant financial services for green and blue enterprises

The problems associated with the lack of access young entrepreneurs have to finance often has its roots in the broader issue of financial exclusion. Many young people are locked out of the formal finance system, and therefore significant

Key policy messages

Lack of access to finance inhibits young people's ability to innovate: young women and men engaged in enterprise start-ups often face significant hurdles obtaining the finance they require, more so than older people, who are more likely to have a financial history or assets to draw on.

Improve access to relevant financial services for green and blue enterprises: innovative financing is needed to direct investments into those economic activities that can enhance green and blue growth (e.g. green finance, sustainability bonds, green bonds, social impact investments).

Promote financial inclusion for young people: consider the institutional mechanisms through which young people are excluded from full participation in formal financial systems.

Direct public investments towards sustainable development: support projects that encourage innovation and the transformation of the economy and which contribute to the protection of the environment.

Create incentives for private investments into green and blue growth: strategically target public finance to attract private capital into green investment through measures such as guarantees, insurance products and incentives, combined with the right policy support.

Create market-oriented funds for youth-owned green and blue enterprises: new funding mechanisms to increase the access young people have to business finance in the green and blue economies.

Support market-based transactions for financing green and blue growth: create opportunities in national and global value chains and the emergence of new, carbon-based transactions.

Public-private partnership funding schemes for blue and green enterprises: draw on public and private expertise to scale up investment for green and blue growth.

legal and regulatory reforms, as well as new financial products and services, are needed to address this (see Friedline and Rautkis 2014). Financial inclusion means that excluded individuals, households and small businesses have access to and use a range of appropriate financial services. This includes services such as savings, insurance and credit, which must be made relevant to young women and men. These financial services must also be provided responsibly, sustainably and in a well-regulated environment.

While many organisations are working to increase financial inclusion, they often overlook the importance of understanding the particular behaviours, preferences and needs of young people, especially those living in Africa. The MasterCard Foundation has undertaken a number of studies and initiatives to promote financial inclusion for young people (see Boston Consulting Group 2015). Among its recommendations is the need for broad engagement with financial service providers, regulators, national policy-makers and civil society. Regulators and policy-makers are encouraged to consider the bigger picture and balance the need for customer and institutional protections with the goal of financial inclusion for youth.

Financial inclusion also extends to the field of financial literacy. Child and Youth Finance International (2016) calls for better integration of financial inclusion, financial capabilities, entrepreneurial competencies and promotion of economic citizenship, while ensuring teachers are empowered and equipped with the skills and resources they need.

Improve access to relevant financial services for green and blue enterprises

Because many young women and men face problems accessing the financial services they require to start or expand a business, it is necessary to improve the access young people have to financial services. The EIU (2015, p. 12) suggests that 'innovative financing' is needed 'to direct investments into those economic activities that can enhance ocean health'. Significant changes are needed to the range of financial instruments available to support greater low-carbon private sector investment. This includes instruments to improve the management of risk in these new markets (Vivid Economics 2014).

Youth Enterprise Development Fund (Kenya)

The Youth Enterprise Development Fund aims to empower youth entrepreneurs and increase their economic opportunities. The fund provides loans to youth enterprises at competitive rates. It attracts and facilitates investments in youth-driven micro, small and medium-sized enterprises, helps them connect with large enterprises and also facilitates overseas youth employment. The fund operates through a network of financial intermediaries, such as microfinance institutions, NGOs and savings and credit co-operative organisations for on-lending to youth enterprises. The fund has supported over 157,000 youth enterprises, trained over 200,000 young entrepreneurs and supported thousands of young people to take up overseas jobs through the Youth Employment Scheme Abroad programme.

Source: Youth Enterprise Development Fund: <http://www.youthfund.go.ke>

Uganda Youth Venture Fund

The Uganda Youth Venture Fund was established by the Uganda Government to provide venture capital and debt finance to viable projects proposed by the young entrepreneurs as well as to enable young people to benefit from associated mentoring services from participating banks. The fund supports the growth of viable and sustainable SMEs in the private sector that are run by young people aged 18–35 years.

Source: Ahaibwe and Kasirye (2015)

Direct public investments towards sustainable development

Governments can invest in projects that encourage innovation and the transformation of the economy, and which contribute to the protection of the environment.

The European Investment Bank (2017) describes its support for projects that contribute to the protection of coastal ecosystems through the reduction of pollution to the marine environment. The bank encourages innovation, including through investment that contributes to the development of a sustainable blue economy. It finances around €2.5 billion of blue economy-related investment each year in Europe, Africa, the Caribbean, Latin America, Asia and the Pacific. In addition, in support of the Paris Agreement, the EIB has committed to deliver around US\$100 billion of climate finance for projects worldwide in the 5-year period to 2020.

Create incentives for private investments into green and blue growth, in addition to direct public investments, governments can stimulate financial markets to increase private investment in green and blue growth. The *Green Investment Report: The Ways and Means to Unlock Private Finance for Green Growth* (Green Growth Action Alliance 2013) suggests that governments need to strategically target their public finance to attract private capital into green investment through measures such as guarantees, insurance products and incentives, combined with the right policy support.²⁰ It includes examples where governments and public financing agencies have successfully mobilised significant amounts of private investment for clean energy, water and agricultural investment. For example, green bonds can be used to raise capital to finance or refinance investments in low-carbon or otherwise environmentally beneficial projects. Like conventional bonds, green bonds can be issued by a corporate, bank or government entity. They are widely

Green Growth Action Alliance

The Green Growth Action Alliance is a Group of Twenty (G20) partnership initiative launched in 2012 with the goal of addressing the estimated US\$1 trillion annual shortfall in green infrastructure investment. The alliance calls for actions to be adopted in five target priority areas during the next 3 years: promote free trade in green goods and services; achieve robust carbon pricing; end inefficient subsidies and other forms of fossil fuel support; accelerate low-carbon innovation; and increase efforts to target public funding to leverage private investment.

Source: World Economic Forum: <https://www.weforum.org/reports/green-growth-action-alliance-progress-report-first-year-catalysing-private-investment>

believed to have significant potential as a means to access deep pools of relatively low-cost capital held by institutional investors for green and climate change-related projects.

The term 'green finance' describes a range of funding mechanisms related to green and blue enterprise development. Though there is no internationally agreed definition, green finance is usually defined in two ways: broadly as a range of funding mechanisms directed to environment-oriented technologies, projects and industries; and narrowly as covering environment-oriented financial products or services, such as loans, credit cards, insurance and bonds (UN 2015).

In recent times, the concept of sustainability bonds has also emerged. These are bonds where the proceeds are exclusively applied to finance or where they refinance a combination of both green and social projects. The International Capital Markets Association (2017) aligns sustainability bonds with its Green Bond Principles and Social Bond Principles. The African Development Bank (2015) has developed a green bond programme, which supports the Ouarzazate Solar Complex project in Morocco. This project aims to expand Morocco's solar energy capacity and increase the proportion of renewable energy within the national energy mix by 2020.

A different, but related, instrument is the social impact bond, which is a public-private partnership where one or more investors provide upfront capital for the realisation of public projects that generate verifiable social or environmental outcomes. Under a typical model, the government contracts an intermediary or project sponsor to implement a social or environmental project in exchange for a promise of a payment contingent on the social outcomes delivered by the project. The intermediary will raise the capital for the project from commercial

or philanthropic investors. It will then contract a service provider to deliver the project's outcomes. If the project fails to deliver, the government does not pay and the investors will lose part or all of their capital. If the project is successful, the government pays the intermediary and investors. The objective is to align impact investment with measurable social and environmental outcomes, grant affordable access to capital to public projects, provide greater certainty on revenues for the execution of public projects and introduce rigorous approaches to performance management by linking payments with performance.

Create market-oriented funds for youth-owned green and blue enterprises

While improving access to existing financial services is important, it may be necessary to create new funding mechanisms for young people in the green and blue economies. This typically involves the creation of a youth fund or other finance instrument (e.g. loan guarantee scheme) to increase the access young people have to business finance.

Support market-based transactions for financing green and blue growth

The mobilisation of private investment for sustainable development has led to a range of market-based instruments to support developments that address environmental issues; these include the use of compliance and voluntary emission offsets in the area of climate change. The Kyoto Protocol, through the Clean Development Mechanism, has spurred a rapidly expanding, multibillion-dollar international market in the compliance sector. Financial flows from emission-offset markets could become a major source of financing for sustainable development. Attempts are also being made to create incentives to protect and regenerate ecosystem

Social impact bonds for girls' education

Educate Girls is the first Indian organisation to make use of social impact bonds to launch a pay-by-results programme, receiving support from Instiglio, a US-based non-profit social enterprise.

Educate Girls aims to create long-term and sustainable social change by empowering girls and creating awareness in society about the importance of educating girls in the districts in India with the worst gender gaps to enrol in and attend school. Payments will be expected for increased enrolment of girls in school, increased attendance in school and continued enrolment over several years, and improvements in learning and test scores.

For more information: Dasra: <https://www.dasra.org>

services, such as the management of fisheries and soil conservation. A UNEP-led project known as TEEB (The Economics of Ecosystem services and Biodiversity) is developing a broad array of policy measures that could help spearhead change in business models and practices.²¹

These new trends create opportunities in national and global value chains and the emergence of new, carbon-based transactions. Market-based mechanisms provide a sustainable means for resource allocation and create the potential for large-scale impact. However, building nascent

markets requires strategically focused interventions that are time bound and catalytic.

In East Africa, the rural poor's reliance on wood for heating and lighting creates a heavy impact on the natural environment and the carbon cycle. While improved incomes and reduced poverty can address this in the long term, the challenge is to find ways to meet the combined needs in the short term. To this end, the Millennium Promise and the Earth Institute established a social capital fund to support the introduction of market-based approaches to the introduction of new, appropriate technologies that

Youth Employment Strategy Green (Morocco)

The Morocco Youth Employment Strategy Green aims to improve the linkages between the need for youth employment generation and green job opportunities. The project seeks to support Morocco in its ongoing endeavours to increase employability among young men and women, with a focus on poverty alleviation, young women's economic empowerment and the improvement of standards of living. The project supports this overall outcome through three entry points, which include (1) increasing access to financial services for green businesses benefiting the most vulnerable youth groups in target areas.

The other two entry points are (2) developing and implementing a nationwide green employment strategy and an operational plan in to-be-identified target areas with the highest unemployment rates and the best potential for the green economy; and (3) capacity development plan based on market demand for green jobs and implementing it with both direct young male and female beneficiaries and key employment-generation actors.

Source: Green Growth Knowledge: <http://www.greengrowthknowledge.org/project/youth-employability-strategy-green-morocco-yes-green>

Bright Green Energy Foundation (Bangladesh)

The Bright Green Energy Foundation in Bangladesh aims to introduce renewable energy technologies to 75 million Bangladeshis and to 1.6 billion energy-starved people around the world. The programme also promotes solar lanterns and solar home systems in rural areas. Businesswomen in these areas are trained in the promotion, installation, repair and maintenance of these systems. Special attention is being given to establishing solar home systems in rural clinics and schools, as well as to using solar power for rural telecommunications. The ambition is to also promote ecovillages or eco-areas that integrate the use of solar home systems with biogas plants, tree plantation and use of organic fertilisers. Bright Green Energy Foundation became IDCOL's (Infrastructure Development Company Limited) partner organisation in June 2011. Since then, it has successfully installed over 145,000 solar home systems in rural off-grid Bangladesh through its own network of 307 rural branch offices all over Bangladesh.

Source: Bright Green Energy Foundation: <http://www.greenenergybd.com>

reduce carbon loss and support the development of sustainable livelihoods. The fund taps into the emerging mechanisms for carbon trading, creating a market for investors who want to trade the carbon credits generated by the introduction of new cooking and energy production technologies. First of these technological initiatives is an energy-efficient stove, which generates carbon credits through the reduction of non-renewable biogases used in cooking. The fund will apply, support and audit this certified technology and will promote the creation of a local value chain for the production and distribution of the stoves. This includes the training of young people in the skills required to produce and distribute the stoves. Thus, not only do the stoves reduce carbon emissions, they also create opportunities for business development within poor, rural communities. The fund mobilises private investment by foreign firms wishing to obtain carbon credits, while reducing the risk to rural households of adopting this new technology.

A second initiative of the fund is the creation of micro-grids for household electricity. Poor, rural households in east Africa typically rely on kerosene lamps for their heating. While this is cheap, it can be dangerous and such

lamps are high carbon emitters. With the introduction of solar panels and the use of low-voltage light-emitting diode (LED) lights, electricity for lighting can be generated across a local community. Solar electricity can be produced locally and distributed through a mini-grid to neighbouring households. These applications create an opportunity for business development, while reducing the carbon footprint produced by kerosene lamps in individual households. The fund provides a mechanism for mobilising carbon investments that produce credits. Because the scheme will ultimately reduce the cost of lighting to rural households, the scheme will facilitate the removal of kerosene lighting while creating a market for the production and distribution of cheaper, solar electricity. Thus, the fund will facilitate the reduction of risk and the mobilisation of funds that support this transition and kick-start the market.

In addition, the fund is linking up with the creation of 'green teams', which Youth Employment and Skills Kenya is leading. This initiative aims to build a movement of young women and men across Africa into teams that work on the green value chains of tomorrow. These teams will form a part of a network of organisation that integrates job creation within green global and national value chains, while

mobilising microfinance services. A key element in this strategy is to establish a green academy for young people to provide technical and vocational training in green skills, while also providing business development services and teaching entrepreneurial skills.

Public–private partnership funding schemes for blue and green enterprises

In addition to creating youth-specific funds and market mechanisms, there is also value in mobilising the considerable financial resources of the private sector. The Addis Ababa Action Agenda of the Third International Conference on Financing for Development (UN General Assembly 2015, para. 35) calls 'on all businesses to apply their creativity and innovation to solving sustainable development challenges' and invites business to 'engage as partners in the development process, to invest in areas critical to sustainable development, and to shift to more sustainable consumption and production patterns'.

The Green Growth Action Alliance (2013) supports the combined use of public and private expertise to scale up investment for green growth. By supporting the collaboration of more than 50 financial institutions,

corporations, governments and NGOs, the Alliance works with governments to adopt a systematic approach that rewards innovative green sectors through sound policies and improves their access to finance. Alliance members achieve this by collaborating to identify and deploy public money to unlock private sector investment, identifying innovative financing and derisking structures, and pilot testing new models. As an example, the Alliance is developing replicable models that produce private financing for sustainable agriculture. A pilot programme in Vietnam has identified specific interventions, including a local investment fund to promote forest protection, renewable energy to reduce greenhouse gas emissions from agricultural wastes, irrigation infrastructure for improved land management, and technical assistance to local banks to identify and lend to smallholders that follow good environmental practices.

UNCTAD (2015) describes how public–private partnerships (PPPs) have been used to increase the supply of finance to SMEs in emerging markets. Similarly, the World Investment Forum (2014) recommends the improvement and wider use of PPPs, including with donor support for the

Area 5: improving access to finance

Checklist of key questions

Do young entrepreneurs face problems when accessing finance for their business ventures? Have these been documented? What responses have been formulated?

Are there specific financing facilities in place to help young entrepreneurs access the finance and investments they require for green and blue enterprises?

Are there any financial inclusion programmes in place and do these focus on the problems experienced by young women and men – especially young entrepreneurs?

Have market mechanisms for financing green and blue enterprises been established?

How are commercial finance providers encouraged to finance green and blue enterprises?

Are young entrepreneurs financially literate and do they have the expertise to practise effective financial management for greater impacts in blue and green enterprises?

SDGs to improve risk-return profiles and address market failures. PPPs are typically used for energy, water and transportation projects but also for social infrastructure, such as health care and education. PPPs can therefore support entrepreneurial development through social enterprises.

3.6 Promoting awareness and networking

Raise awareness about entrepreneurship opportunities for young people in the green and blue economies

It is important to raise awareness about entrepreneurship opportunities in the green and blue economies. This can be achieved by focusing awareness-raising programmes on the green and blue projects that can provide a tangible and motivational boost to green and blue entrepreneurs towards their communities and the world. Practical case studies of blue and green enterprises can be helpful for promoting these opportunities among young

people and for sharing best practices. Initiatives aimed at changing the 'hearts and minds' of the public can influence the attitudes, norms and values that 'affect the way we see the environment, the way we live and the importance of introducing new, more sustainable ways of living and working' (White 2017).

A World Bank Group (2017) survey of Moroccan green entrepreneurs found that most are young and educated. Most started their business because they wanted to be their own boss. However, many are frustrated by a lack of awareness of the opportunities that are available to support them. Furthermore, many young women and men feel isolated in their endeavours and can benefit from access to networks of like-minded youth entrepreneurs.

Integrate with educational programmes

As indicated earlier, education programmes can help foster entrepreneurial attitudes and behaviour. The ILO's 'Know About Business' global training programme has been

Main policy messages

Raise awareness about entrepreneurship opportunities for young people in the green and blue economies: draw attention to projects that provide a tangible and motivational boost to young green and blue entrepreneurs.

Integrate with educational programmes: education and skills development provide the opportunity for awareness raising among young people.

Strengthen networks of green and blue entrepreneurs: to support nascent young entrepreneurs and encourage the creation of new business models, products, services and practices.

Support youth networks: policy-makers and programme managers should deepen their engagement with existing youth networks and ensure these are closely aligned with all efforts aimed at promoting youth entrepreneurship in the green and blue economies.

Promote young role models: they can have a profound influence on the career decisions of young men and women and may enhance the desire to become an entrepreneur and contribute to the development of their business.

Support mentoring networks: connect young entrepreneurs with experienced business people who can provide practical advice, support and encouragement.

used in various educational settings to help young people understand what a business is and how it contributes to social and economic growth (de Rezende and Christensen 2009). Education and skills development provide the opportunity for awareness raising among young people. The UNDP (2013) recommends creating a link between education and training programmes to provide young people with targeted skills and environmental awareness so they can identify entrepreneurship opportunities in the field of environmental conservation and rehabilitation.

Finnegan (2016) argues that mainstream private sector organisations can also assist in helping to bring youth entrepreneurs into major business sectors.

Strengthen networks among green and blue entrepreneurs

Social networks are important mechanisms for the exchange of ideas and information. They can be used to support nascent entrepreneurs and can encourage the creation of new business models, products, services and practices. These networks can be formal organisations or loose opportunities for interaction.

Associations of young entrepreneurs can play an important role in guiding and supporting fledgling first-time entrepreneurs and they should be engaging with officialdom and ensuring that youth entrepreneurs' voices and concerns are heard at various platforms and forums (Finnegan 2016).

Intellectap (2015) presents research from East Africa, highlighting how young entrepreneurs use networks to showcase their ideas, meet other entrepreneurs, funders and industry experts, and build greater visibility across various sectors. However, most young entrepreneurs find it challenging to access such networking opportunities. Peer networks are perceived to be easier

to access than business networks, which are expensive and tend to favour mature enterprises. Initiatives such as Rwanda's Youth Connekt and Ashoka's Youth Venture bridge this gap by connecting young people and providing them with an opportunity to interact with peers and mentors.

The World Islamic Economic Forum (WIEF) Young Leaders Network (YLN) is a global youth network for young change-makers to connect and collaborate on business opportunities and social projects for the common good with members from around the world. YLN brings young people together to explore the opportunities for collaboration on world-changing solutions. YLN organises flagship programmes, such as the WIEF IdeaLab, which is a boutique start-up networking conference, and the annual WIEF Young Fellows programme, which nurtures top class leaders. YLN also supports the MOCAfest (a creative arts initiative to help empower creative talents), the MOCAfellows (a creative arts residency for emerging artists) and the Internship Programme (a cross-border internship placement programme). Other programmes include thinkTalk (a community dialogue) and the YLN Networking Evening (a speed-networking event bringing together young professionals from different industries).²²

Support youth networks

Existing youth structures and networks are valuable resources for policy-makers and programme managers. They contain young women and men with a strong interest in youth entrepreneurship and are often a source for experience, information and contacts. By strengthening their engagement with existing youth networks, policy-makers can ensure their efforts are closely aligned with challenges and opportunities facing young people in the green and blue economies.

GreenCape's support for green entrepreneurship (South Africa)

GreenCape is a South African NGO mandated by the Western Cape Government. It supports green technology development and produces market intelligence reports about the green economy. This includes sector-focused information, market opportunities and challenges, and a general overview of investment opportunities for both investors and businesses interested in, or already operating in, the green space. This information is accumulated through engagement with various facets within the country's ecosystem, including businesses, investors, government and academia. GreenCape aims to play a key role in removing barriers to the growth of green entrepreneurs and the green economy as a whole. Over the past 3 years, GreenCape has written annual market intelligence reports about utility-scale renewable energy, energy services, sustainable agriculture, the waste economy and water.

Source: GreenCape: <http://www.green-cape.co.za/>

The Commonwealth Alliance of Young Entrepreneurs (CAYE) is an example of such a network. CAYE was established in 2015 and works to strengthen and support young entrepreneurs in Commonwealth regions. These regional networks create a combined voice and representation at forums to influence policy development on youth entrepreneurship. CAYE networks champion the cause of young entrepreneurs at the local, national, regional and international levels, through engagements with governments, the media, the public and other relevant stakeholders.

Promote young role models

Role models can have a profound influence on the career decisions of young men and women. They may also enhance the desire to become an entrepreneur and the entrepreneurial self-efficacy of individuals, which may, in turn, positively influence entrepreneurial intentions and, ultimately, entrepreneurial activity. Furthermore, once individuals are entrepreneurs, role models may contribute to the development of their business. Role models have been found to compensate for a lack of entrepreneurial experience, and the most common entrepreneurial

role models tend to be next-door examples rather than the more remote public 'icons' (Bosma et al. 2012).

Venkataraman (2004) describes the informal networks, role models and social systems that generate entrepreneurship and innovation, and argues that these systems are required to complement increases in available risk capital: 'If novel ideas and young people are concocted in an extremely heady mixture of the wine and other exotic items found in informal forums, the ideas discussed will not be low-quality enterprises and sustaining entrepreneurship, rather unusual ideas of entrepreneurial value will emerge. The resulting innovations are the ones that have the potential to transform the region. Bold new ideas that have never been executed or built before will be the basis of change'.

Support mentoring networks

Mentors with extensive business experience and knowledge can advise and guide young entrepreneurs on a range of business matters. Whether delivered one to one or in a group environment, young entrepreneurs can benefit from close connections with experienced business people who can provide practical advice, support and encouragement.

Area 6: promoting awareness and networking

Checklist of key questions

Is there a national campaign in place to improve awareness among young people of the opportunities for entrepreneurship in the green and blue economies?

Are there networks of young people interested and involved in green and blue economy ventures?

Are young success stories publicly recognised and celebrated?

Are entrepreneurial role models presented, especially young male and female role models?

Are there networks in place connecting young entrepreneurs with experienced mentors?

Erasmus for Young Entrepreneurs is a cross-border exchange programme that provides new or aspiring entrepreneurs in Europe with the chance to learn from experienced entrepreneurs running small businesses in other countries. The exchange of experience takes place during a stay with the experienced entrepreneur, which helps the new entrepreneur acquire the skills needed to run a small firm. The host benefits from fresh perspectives on his or her business and gets the opportunities to co-operate with foreign partners and learn about new markets.²³

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Endnotes

1. Data are from World Population Prospects, 'The 2012 Revision, Highlights and Advance Tables'. Working Paper No. ESA/P/WP.228 CD-ROM Edition-Extended Dataset
2. For more information on the ILO Global Initiative on Decent Jobs for Youth go to: <http://www.ilo.org/global/topics/youth-employment/databases-platforms/global-initiative-decent-jobs/lang--en/index.htm>
3. United Nations, The Paris Agreement (2015), [online] Available online at https://unfccc.int/sites/default/files/english_paris_agreement.pdf [Accessed April 2018]
4. UN General Assembly, 2015, p. 14
5. Within these goals, the global development agenda aims for 'at least seven per cent gross domestic product growth per annum in the least developed countries' (UN General Assembly, 2015, p19) and higher levels of economic productivity through diversification, technological upgrading and innovation. To achieve this, governments are to establish 'development-oriented policies' (UN General Assembly, 2015, p19) that support productive activities, entrepreneurship, creativity and innovation. Policies should include the formalisation and growth of informal enterprises and improved access to financial services.
6. Sustainable economic growth includes increases in aid for trade for developing countries, such as through the UNCTAD Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries.
7. The promotion of sustainable consumption and production patterns aims to reduce waste through waste prevention, reduction, recycling and reuse, and encouraging businesses to adopt sustainable practice by integrating sustainability information into their reporting cycle. This requires national policies and public procurement practices that create new opportunities for entrepreneurs in these emergent industries, along with the rationalisation of inefficient fossil-fuel subsidies.
8. UN General Assembly, 2015, p14. This includes achieving 'full and productive employment and decent work for all women and men by 2030, including for young people and persons with disabilities, and equal pay for work of equal value' (UN General Assembly, 2015, p19, Target 8.5).
9. Industrialisation policies are also required to 'significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries' (Target 9.2).
10. Tourism: the SDGs refer to the formulation and implementation of policies to promote 'sustainable tourism' to create jobs and tools to monitor sustainable development impacts for sustainable tourism, which creates jobs and promotes local culture and products.

11. The Commonwealth Secretariat has produced a Commonwealth Blue Economy Series of papers to support the development of the blue economy in Commonwealth member countries by providing a high-level assessment of the opportunities available for economic diversification and sustainable growth in SIDS.
12. For the mapping report, go to: <http://www.andeglobal.org>
13. The OECD Programme for Regulatory Reform aims to help governments improve regulatory quality. The programme targets the reform of regulations that raise unnecessary obstacles to competition, innovation and growth, while ensuring that regulations efficiently serve important social objectives. The objective of this programme is promoted in four ways: policy recommendations, country reviews, thematic discussions and co-operation with non-member countries.
14. For more information on the ITC's Youth and Trade Programme go to: <http://www.intracen.org/youth/>
15. WIPO GREEN: <https://www3.wipo.int/wipogreen/en/>
16. *Do-nou* is a Japanese word that means wrapping the soil in a gunny bag. Do-nou technology on road maintenance involves the use of gunny bags to repair and maintain damaged sections of the road. The bags are filled with sand, farm soil or gravel (murrum), and thereafter the bag opening is properly secured with an appropriate string.
17. M-farm: <http://www.mfarm.co.ke>. EcoPost: <http://www.mfarm.co.ke>
18. Digital Opportunity Trust: <https://www.dotrust.org>
19. Traditionally, dina are social norms or codes of conduct that govern relations within and between communities. They are voluntary rules, developed and applied by communities themselves, and normally take the form of oral tradition. Dina are not recognised as laws by the state, but are locally legitimate and therefore generally respected
20. This report suggests that approximately US\$34 billion in additional public funding is needed to stabilise global temperatures at an acceptable level (Green Growth Action Alliance 2013).
21. See: <http://www.teebweb.org>
22. World Islamic Economic Forum, Young Leaders Network: <https://wyn.wief.org>
23. Erasmus for Young Entrepreneurs: <http://www.erasmus-entrepreneurs.eu>

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