



# WOMEN'S PARTICIPATION IN GREEN GROWTH – A POTENTIAL FULLY REALISED?

A scoping study for the Green Growth Working Group (GGWG)  
of the Donor Committee for Enterprise Development (DCED)



The Donor Committee for Enterprise Development

Financed by

**BMZ**



Federal Ministry  
for Economic Cooperation  
and Development

## Abbreviations and acronyms

|               |   |
|---------------|---|
| <b>APE</b>    | Association for the Protection of the Environment   |
| <b>BMZ</b>    | Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung  |
| <b>CSR</b>    | Corporate Social Responsibility   |
| <b>CSV</b>    | Created Shared Value  |
| <b>DCED</b>   | Donor Committee for Enterprise Development  |
| <b>FAO</b>    | Food and Agriculture Organisation   |
| <b>FLO</b>    | Fairtrade Labelling Organisations International   |
| <b>GDP</b>    | Gross domestic product  |
| <b>GGND</b>   | Global Green New Deal   |
| <b>GGKP</b>   | Green Growth Knowledge Platform   |
| <b>GIZ</b>    | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH  |
| <b>GOTS</b>   | Global Organic Textile Standard   |
| <b>ILO</b>    | International Labour Organisation   |
| <b>IOE</b>    | International Organisation of Employers   |
| <b>ITC</b>    | International Trade Centre  |
| <b>ITUC</b>   | International Trade Union Confederation   |
| <b>KKPKP</b>  | Kagad Kach Patra Kashtakari Panchayat   |
| <b>LTC</b>    | Land Tenure Certificate   |
| <b>MoU</b>    | Memorandum of Understanding   |
| <b>MSMEs</b>  | Micro-, small and medium enterprises  |
| <b>NGO</b>    | Non-governmental organisation   |
| <b>OFCC</b>   | Organic & Fairtrade Competence Centre   |
| <b>OECD</b>   | Organisation for Economic Cooperation and Development   |
| <b>PSES</b>   | Promotion of Social and Environmental Standards in the Industry   |
| <b>PSD</b>    | Private Sector Development  |
| <b>RMG</b>    | Ready-made garment  |
| <b>SEBRAE</b> | Serviço Brasileiro de Apoio às Micro e Pequenas Empresas<br>(The Brazilian Micro-Enterprise and Small Business Support Service) |
| <b>SENAC</b>  | Serviço Nacional de Aprendizagem Comercial (National Service of Commercial Apprenticeship)                                      |
| <b>SWaCH</b>  | Seva Sahakari Sanstha Maryadit, Pune (Solid Waste Collection and Handling)  |
| <b>TPRP</b>   | Tourism-led Poverty Reduction Programme   |
| <b>UNCSD</b>  | United Nations Conference on Sustainable Development  |
| <b>UNDP</b>   | United Nations Development Programme  |
| <b>UNEP</b>   | United Nations Environment Programme  |
| <b>UNPCB</b>  | Union Nationale des Producteurs de Coton de Burkina   |
| <b>UNWTO</b>  | United Nations World Tourism Organisation   |
| <b>WHO</b>    | World Health Organisation   |
| <b>WTTC</b>   | World Travel and Tourism Council  |

# WOMEN'S PARTICIPATION IN GREEN GROWTH – A POTENTIAL FULLY REALISED?

A scoping study for the Green Growth Working Group (GGWG)  
of the Donor Committee for Enterprise Development (DCED)

# Content

|   |           |
|---|-----------|
| Abbreviations and acronyms .....  | 2         |
| Executive summary .....   | 6         |
| <b>1 Introduction .....</b>   | <b>8</b>  |
| <b>2 Factors influencing women's participation in green growth .....</b>  | <b>14</b> |
| 2.1 General gender patterns .....   | 14        |
| 2.2 Education .....   | 15        |
| 2.3 Labour market .....   | 18        |
| 2.4 Business environment .....  | 21        |
| 2.5 The payoff .....  | 23        |
| 2.6 Sustainable consumption .....   | 24        |
| 2.7 Challenges and opportunities for government approaches .....  | 25        |
| 2.8 Summary: Factors influencing women's participation in green growth .....  | 26        |
| <b>3 Making women's participation in green growth a reality: two value chain examples .....</b>                       | <b>27</b> |
| 3.1 Greening and women's participation in the cotton value chain in West Africa .....                                 | 27        |
| 3.1.1 The cotton value chain .....  | 28        |
| 3.1.2 Cotton production: greening and women's participation .....   | 28        |
| 3.1.3 Ginning: greening and women's participation .....   | 33        |
| 3.1.4 Textile segment: greening and women's participation .....   | 35        |
| 3.2 Greening and women's participation in the tourism value chain in Brazil .....                                     | 37        |
| 3.2.1 The tourism value chain .....   | 38        |
| 3.2.2 Accommodation: greening and women's participation .....   | 40        |
| 3.2.3 Food & beverages: greening and women's participation .....  | 42        |
| 3.2.4 Crafts: greening and women's participation .....  | 43        |
| 3.3 Summary: Making women's participation in green growth a reality .....   | 46        |
| <b>4 Assessment of potentials, risks and relevant approaches for women's participation in the green economy .....</b> | <b>47</b> |
| 4.1 General gender patterns and their impact on women's participation .....   | 47        |
| 4.2 Potentials for enhanced women's participation in the green economy .....  | 49        |
| 4.3 Challenges to women's participation in the green economy .....  | 52        |
| 4.4 Approaches enhancing women's participation in the green economy .....   | 54        |
| 4.5 Summary: Potentials and risks for women's participation in the green economy .....                                | 56        |
| <b>5 Recommendations .....</b>  | <b>57</b> |
| 5.1 International development institutions .....  | 57        |
| 5.2 Governments and policy makers .....   | 58        |
| 5.3 Private sector .....  | 60        |
| 5.4 Research institutions and academia .....  | 61        |
| 5.5 Civil society .....   | 61        |
| Annex .....   | 62        |
| Value chain mapping I: Gendered participation and potential for greening in cotton production .....                   | 62        |
| Value chain mapping II: Gendered participation and greening in tourism in Bahia, Brazil .....                         | 63        |
| Bibliography .....  | 64        |
| List of experts interviewed and consulted .....   | 67        |
| Imprint .....   | 68        |

## Boxes

|         |   |    |
|---------|---|----|
| Box 1:  | Definition of a green economy.....  | 9  |
| Box 2:  | Definition of green growth.....   | 10 |
| Box 3:  | Definition of Green Jobs.....   | 10 |
| Box 4:  | Definition of private sector development.....   | 11 |
| Box 5:  | Definition of gender.....   | 11 |
| Box 6:  | Gender segregation per field of study.....  | 16 |
| Box 7:  | Ecological footprint.....   | 24 |
| Box 8:  | Ethical consumerism and consumer movements.....   | 25 |
| Box 9:  | Value chain approach: a diagnostic tool.....  | 27 |
| Box 10: | Environmental and social impacts by chemical use in cotton production.....              | 29 |
| Box 11: | Fairtrade: facts and requirements for gender and environment.....                       | 30 |
| Box 12: | Organic cotton market development & top ten brands using organic cotton (2008–2010).... | 32 |
| Box 13: | Barriers, opportunities and approaches for women in organic cotton production.....      | 35 |
| Box 14: | The Global Organic Textile Standard.....  | 36 |
| Box 15: | Pro-poor tourism and gender.....  | 39 |

## Cases

|          |   |    |
|----------|---|----|
| Case 1:  | Oversimplifying gender – the example of women in fishery.....                               | 12 |
| Case 2:  | Participation of women in renewable energies.....   | 18 |
| Case 3:  | Waste management and recycling in Egypt.....  | 19 |
| Case 4:  | Certificates for family-friendly companies and institutions.....                            | 20 |
| Case 5:  | Reversed gender trend – Philippines.....  | 21 |
| Case 6:  | Investments in solar energy in Uganda.....  | 22 |
| Case 7:  | Land law bill and gender impact in Vietnam.....   | 23 |
| Case 8:  | Energy-efficient cooking stoves.....  | 23 |
| Case 9:  | Greening policies in South Africa.....  | 25 |
| Case 10: | Side-value chains of organic cotton.....  | 31 |
| Case 11: | 'No charity, just work' – Linking poor African communities with the fashion industry.....   | 37 |
| Case 12: | Inclusive tourism at the Coconut Coast in Bahia, Brazil.....                                | 41 |
| Case 13: | Local organic farming using organic fertiliser from recycled wet waste – Bahia, Brazil..... | 42 |
| Case 14: | Cassava flour mill – productive asset and tourist attraction – Bahia, Brazil.....           | 43 |
| Case 15: | Benefits from improved palm fibre craft production – Bahia, Brazil.....                     | 44 |
| Case 16: | Capacity development for tourism-related skills – Bahia, Brazil.....                        | 45 |
| Case 17: | Doorstep waste collection in a MoU with the municipality in Pune, India – SwaCH.....        | 48 |
| Case 18: | The flower industry in Ecuador against gender-based violence.....                           | 49 |
| Case 19: | Specialty chocolate EKOCAO.....   | 50 |
| Case 20: | Consequences of an inadequate gender analysis.....  | 51 |
| Case 21: | Promotion of women in atypical professions.....   | 52 |
| Case 22: | Biofuel production impact on women.....   | 52 |

## Figures

|            |   |    |
|------------|---|----|
| Figure 1:  | Intersecting research areas.....  | 9  |
| Figure 2:  | Interaction of factors fostering gender segregation.....                                      | 15 |
| Figure 3:  | Priority occupations for the green economy in South Africa.....                               | 16 |
| Figure 4:  | General cotton value chain – functions, segments and actors.....                              | 28 |
| Figure 5:  | Tourism value chain – functions and suppliers.....  | 38 |
| Figure 6:  | Sustainable and virtuous cycle of waste recycling for organic food production in tourism..... | 43 |
| Figure 7:  | Effects of greening and women's participation in cotton.....                                  | 50 |
| Figure 8:  | Multi-level approach of green gender-sensitive private sector development.....                | 55 |
| Figure 9:  | Gendered participation and potential for greening in cotton production.....                   | 62 |
| Figure 10: | Gendered participation and greening in Bahia, Brazil.....                                     | 63 |

# Executive summary

Environmental degradation is a consequence of unsustainable business and consumption patterns. It constitutes an enormous global challenge. In conjunction with a widespread disillusionment with the prevailing economic model, this phenomenon has led to a growing interest in the concepts of the green economy and green growth. These are evolving as alternative paradigms, based on the idea that a high level of wealth need not necessarily lead to growing environmental risks, ecological scarcities and social disparities. Green economies are defined as economies that result in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

Ecological challenges, natural disasters and unsustainable natural resource management disproportionately affect the poor in developing countries. Since women constitute the majority of the world's poor and are comparatively more dependent on scarce natural resources, they suffer in particular from these effects and the repercussions of climate change. Hence, the effects of climate change are not gender neutral.

However, green growth will neither reduce these effects on women nor automatically increase gender equality. Specific and gender-sensitive policies and interventions are necessary to ensure that women and men can equally benefit from a green(er) economy.

In this context, the DCED commissioned a scoping study to analyse opportunities and challenges for women's participation in green growth in developing countries. The purpose of the study is threefold: (1) to shed more light on the gender dimension of green growth, especially in the context of private sector development and thus fill a knowledge gap in the green growth discourse; (2) to validate women's contributions to green growth and sustainable private sector development; and ultimately (3) to promote women's empowerment and gender equality.

The overall approach of the study combines three intersecting perspectives, which are dealt with both independently as well as in tandem: a gender perspective with a focus on the (potential) participation of women, a greening perspective and a private sector development perspective. The focus is the (transition to a) green economy in developing countries. Examples from industrialised countries are used as a reference to illustrate particular relevant aspects.

A major finding of the study is that gender patterns, obstructing equal opportunities and access in the brown economy in developing countries, are similarly valid for the green economy. Gender inequalities persist particularly in the area of economic participation, but also in other spheres. Gender-specific constraints are deeply rooted in gender roles and norms, often representing severe barriers to women's participation.

Time constraints due to their triple burden of paid work, care and housework are one major obstacle to women's economic participation. Time poverty also implies less flexibility in terms of working hours and places for formal work.

Women's limited access to productive inputs, such as know-how, land, finances, technology and equipment, is another obstacle that will not automatically change in the green economy. Furthermore, women often lack comprehensive information on markets, price developments and consumer preferences, which are essential to meet changing demands and (green) market developments. Discriminatory laws (e.g. land, inheritance and marital laws) further limit women's full participation in the economy. Bureaucratic hurdles also constitute obstacles, often more pronounced than for men. This especially hinders women when formally registering a business, which is one way of scaling up their business and relinquishing the informal sector.

With a transition to the green economy, numerous green(er) jobs will be created. However, prevailing gender differences in education and fields of study that do not correspond with the skills needed in the emerging green economy constitute another obstacle. The skills and professions identified as particularly relevant for the green economy tend to be male-dominated. Moreover, green jobs do not automatically become decent jobs, in respect of working conditions and specifically in terms of freedom, equity, security and human dignity. They often suffer from the same abuses and risks that permeate the brown economy, including discriminatory gender patterns. In sectors marked by widespread informality, such as the waste management sector, the goal of green job creation is closely linked to improving working conditions and increasing formality.



Greening and gender equality and (equal) economic participation of women can benefit each other, as numerous cases described and analysed in the study reveal. The opportunities the green economy potentially holds for women's participation in green growth relate to green production and manufacturing processes (eliminating (chemical) inputs and hazardous working conditions), green consumerism (creating new business opportunities and markets), MSME development and female entrepreneurship (including new professions, product development and use of green technology).

Two value chain examples illustrate the in-depth potential for women's participation and greening and the challenges faced in different sectors – specifically in the value chains of cotton as a non-food cash crop and tourism as a service sector. The analysis shows that organic production in agriculture can remove entry barriers (especially in cotton) for women and yield economic and health benefits and impact positively on food security. Nonetheless, women's workload is potentially increased at the same time. Green supply chains within holistic approaches of sustainable and inclusive tourism offer important opportunities for the economic participation of women, especially in the area of crafts. However, control over own income and benefits as well as changes in prevalent gender patterns at household level do not occur automatically. This has implications for the effective empowerment of women in the green economy. In both sectors, women often participate at production level or under precarious working conditions at manufacturing level. Female participation decreases significantly in decision-making positions at all levels of the chains, and in this it mirrors the patterns of the brown economy.

Industrialised countries contribute much more to climate change than developing countries based on significant global inequalities in consumption. But changing consumption patterns also hold opportunities for green growth. The markets for green and sustainable products are growing (organic cotton, ecotourism, certified goods and agricultural produce). Sustainable production, processing and manufacturing methods in agriculture and industries conserve assets for future generations and influence the emergence of new green products, solutions and technologies and green jobs as decent jobs. Consumption patterns differ between men and women, as their lifestyles, rooted inter alia in economic conditions, power positions and gender relations, determine what they can and wish to consume. In terms of resource impacts, women tend to leave a smaller ecological footprint than men due to their more sustainable consumption patterns.<sup>1</sup>

Overall, the transition to a green economy draws on a sound environmental, economic and social justification. The title of the study poses the question of whether the assumed potential for women's participation in green growth and a green economy has been fully realised. The findings suggest that such potentials indeed exist. However, at the same time numerous obstacles limiting the meaningful and equal participation of and benefits for women are identified. It can therefore be concluded that the actual potential for women inherent in green growth and the green economy has not yet been fully realised. Structural and economical changes are needed and no single blueprint approach will fit each context and set of national priorities. This fact requires attention and appropriate responses by various stakeholders in the transition process.

Approaches geared towards the improved participation of women in the green economy should build upon the opportunities inherent in the green economy, particularly in green private sector development, and minimise the risks involved for disadvantaged groups in general – and women in particular. A multi-level and multi-stakeholder approach, cutting across sectors and national borders, is needed.

Approaches should be participatory and based on local solutions, as these have proven to be most effective and can best be replicated. Adopting a gender approach in green private sector development implies focusing also on the structural causes of gender-based discrimination. It means constantly identifying and understanding the different roles and entitlements of women and men, and their specific challenges. Integrating a gender perspective in order to enhance women's participation does not mean working with women alone. Quite the contrary, as gender is understood as a relational concept, transformation of (power) relations will only be sustainable if both men and women are addressed and understand the actual benefits of the transformation. It should be remembered, however, that not all women or men everywhere are the same. Different approaches are required for different target groups in differing contexts.

Specific recommendations in the area of policy support, policies and laws, capacity building, labour market, private sector development, business environment and consumption at the end of the study address a variety of stakeholders. Development practitioners, governments and policy makers, the private sector, research institutions and academia and civil society will all be required to cooperate in order to exploit the potential for gender equality inherent in the green economy.

1 See OECD 2008: 65.



# 1

## Introduction

Environmental degradation resulting from unsustainable business and consumption patterns is one of the greatest challenges of our time. Ecological degradation and unsustainable natural resource management disproportionately affect the poor in developing countries<sup>2</sup>. Since women constitute the majority of the world's poor and are comparatively more dependent on scarce natural resources, they suffer in particular from these effects and the repercussions of climate change. Furthermore, women as care providers for their families tend to play a greater role in ensuring nutrition and natural resources – in farming, water management, planting and caring for seedlings and crops.<sup>3</sup> In short: climate change impacts are not gender-neutral.

In times of financial crisis, growing divides between the rich and the poor and the severe impacts of climate change and natural disasters, the current economic paradigm is increasingly being questioned. In response to this set of challenges, the concepts of a *green economy* and *green growth* are becoming prominent. In 2009, the United Nations Environmental Programme (UNEP) commissioned a report focusing on a *Global Green New Deal (GGND)*. The GGND set out three concrete objectives: (1) economic recovery; (2) poverty reduction; and (3) reduced carbon emissions and ecosystem degradation. The document proposed a framework for green stimulus programmes as well as supportive domestic and international policies, including support for least developed countries.<sup>4</sup> In 2011, UNEP published its report 'Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication', which outlines the greening of economies as a new engine of growth and a vital strategy for the elimination of persistent poverty.<sup>5</sup> Likewise in 2011, the OECD developed a green growth strategy as a practical framework for governments to seize the opportunities that arise when the economy and the environment are coherently linked.<sup>6</sup>

The 2011 European Union's road map to a low-carbon economy estimates that the investment and innovation required to reduce European emissions by 80 per cent between now and 2050 will save over EUR 175 million. It will generate up to 1.5 million new jobs, and improve European export competitiveness in high-technology markets. Air pollution control and health care costs will be reduced by up to EUR 88 billion a year by 2050. Within this framework the EU is calling for international cooperation and commitments.<sup>7</sup> The numbers indicate that action on climate change can foster green growth, create new economic opportunities and promote social development despite (or because) of the current global financial and economic crisis. A green economy is seen as a pathway towards sustainable development and poverty eradication.<sup>8</sup> However, it should be mentioned that international and national policy frameworks alone are not sufficient – their (gender-responsive) implementation is key for a just and sustainable development. Particularly high-income countries must act according to their responsibility.

Twenty years after the first Earth Summit, the international community will gather again in Rio de Janeiro, Brazil, for the *United Nations Conference on Sustainable Development (UNCSD)*, also known as *Rio+20*. The green economy, in the context of sustainable development and poverty eradication, will be one of the key themes addressed. In this context the DCED commissioned a scoping study to analyse opportunities and challenges for women's participation in green growth in developing countries.<sup>9</sup>

The purpose of the study is threefold: (1) to shed more light on the gender dimension of green growth, especially in the context of private sector development and thereby fill an important knowledge gap in the green growth discourse; (2) to validate women's contribu-

---

2 See OECD 2006.

3 See ILO 2009: 1.

4 See UNEMG 2011: 31.

5 See UNEP 2011a.

6 See OECD 2011d.

7 See European Commission 2011.

8 See UNEP 2011.

9 The DCED as a forum for donors, UN and other international agencies, promotes economic opportunity and self-reliance through private sector development (PSD) in developing countries. To enrich the Rio 2012 discourse and promote the contribution of the private sector to green growth, in 2010, the DCED launched its Green Growth Working Group (GGWG).



tions to green growth and sustainable private sector development; (3) ultimately to promote women's empowerment and gender equality.

The overall approach of the study combines three intersecting perspectives, which are dealt with independently as well as in tandem: a gender perspective with a focus on the (potential) participation of women, a greening perspective and a private sector development perspective.

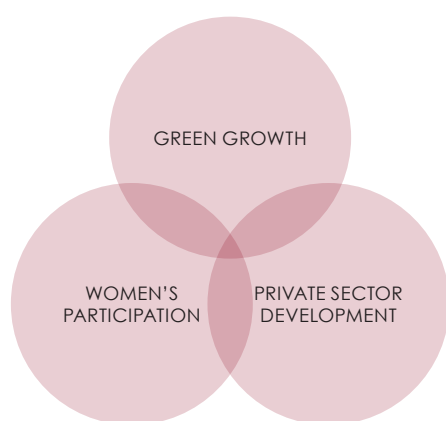


Figure 1: Intersecting research areas

SOURCE: AUTHORS

The main emphasis lies on the green economy in developing countries. However, examples from industrialised countries are used to illustrate certain approaches and arguments. The study examines women's current role in a green economy and green growth. It presents challenges to and opportunities for their participation and identifies (potential) areas for (green) private sector development. As equal participation could allow women to leverage their socio-economic situation, conditions for women's participation in the creation or expansion of green jobs as part of the green economy, are identified.

### Definitions

There is no common definition as yet of what constitutes a green economy or green growth (see boxes 1 and 2 for definitions). The study understands green economy and growth as broad concepts and emphasises their social dimensions. These concepts – especially with a focus on poverty alleviation and gender equality – are of paramount importance to the world's poor and therefore particularly to women in developing countries. A green economy can generate new business areas and opportunities for (pro-poor and inclusive) business. Green growth is therefore a consequence of and a means to greening the economy.

## Box 1

### DEFINITION OF A GREEN ECONOMY

A **green economy** is an economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. A green economy is seen as one whose growth in income and employment is driven by investments that:

- reduce carbon emissions and pollution
- enhance energy and resource efficiency and
- prevent the loss of biodiversity and ecosystem services.

These include investments in human and social capital, and recognise the central position of human well-being and social equity as core goals. Green economic objectives need to be aligned with the sustainable development agenda, highlighting a concern regarding the risks and scarcities faced by peoples across the globe.<sup>10</sup>

Some organisations give preference to the concept of green growth, which is closely interlinked, while at the same time emphasising the growth aspect.<sup>11</sup>

The green economy and green growth are both perceived as potential solutions to address both the current economic crisis and environmental damage. Both concepts, however, demand a shift from the current economic paradigm with its primarily quantitative focus towards a more qualitative approach to growth.

<sup>10</sup> See UNEMG 2011: 31.

<sup>11</sup> The concept of green economy and green growth in particular is not unchallenged by civil organisations, including women's rights organisations. They demand a focus on sustainable livelihoods and fear that the focus on growth might lack a gender perspective and disadvantage women. See, for example, Wichterich 2011.

## Box 2

### DEFINITION OF GREEN GROWTH

**Green growth** emphasises the progress and expansion of the economy by adding an ecological dimension to growth. The OECD defines green growth as *'fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies'*<sup>12</sup>.

The World Bank states that green growth *'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. And this growth needs to be inclusive.'*<sup>13</sup>

In this concept, 'greening' is perceived as a driver for growth. However, the OECD emphasises that green growth should not be seen as an ecological conditionality for developing countries' growth strategies.<sup>14</sup>

In the absence of an agreed clear definition of what constitutes a green economy and green growth, politicians, scientists and practitioners are still debating its dimensions and how to implement them. The World Bank rightly states that green growth strategies will vary across countries, reflecting local contexts and preferences.<sup>15</sup> Given the magnitude of the issue and the various challenges the populations in different countries face, it is not possible to propose a blueprint solution. Rather, the discussion must focus on the characteristics and qualities the transition from a 'brown' or 'grey' economy<sup>16</sup> to a green economy must incorporate. A qualitative requirement, incontestably important, but occasionally neglected, is that the transition must be equitable and fair. This is reflected in the focus of this study to analyse the (potential) participation of women in the green economy.

A global network of researchers and development experts is seeking to further develop a joint vision of green growth and to bridge existing knowledge gaps in green growth theory and practice. The Green Growth Knowledge Platform (GGKP)<sup>17</sup>, a partnership

of the World Bank, UNEP, OECD and the Global Green Growth Institute, was launched in January 2012. Its aim is to provide better tools to foster economic growth and implement sustainable development.

### Green jobs

Connected to both green growth and the green economy is the issue of employment, specifically the creation of 'green jobs'. As the green economy is still emerging, no thresholds clearly define which jobs deserve the label 'green'. It is still therefore a dynamic concept. Moreover, green jobs are viewed from a qualitative angle. They should be decent jobs, referring to working conditions in freedom, equity, security and human dignity.<sup>18</sup> In sectors frequently marked by widespread informality and hazardous working conditions, such as the waste management sector, the goal of creating green jobs is closely linked to improving working conditions and increasing formality as clear steps towards decent jobs.

## Box 3

### DEFINITION OF GREEN JOBS

In the absence of unified and agreed definitions for green growth or the green economy, there is also no unchallenged definition of what constitutes a green job. The ILO has defined 'green jobs' as jobs that reduce the negative impact of enterprises and economic sectors on the environment and ultimately contribute to sustainability. Green jobs are jobs in agriculture, industry, services and administration, contributing to preserving or restoring the quality of the environment.<sup>19</sup> The concept of green jobs is relative and highly dynamic. There is no defined or fixed set of green jobs, but there are 'shades' of green employment. For example, being a bus driver can be considered a green job when the bus runs on 'clean energy'; however, the profession per se is not a green one. Other jobs tend to be neglected when analysing green job potential, e.g. jobs in the car industry tend to be excluded, even though some may be devoted to developing low-carbon vehicles.

Green jobs should also be decent jobs. Decent work is defined as opportunities for women and men to carry out productive work in conditions of freedom, equity, security and human dignity. Decent work is central to efforts to reduce poverty, and is a means of achieving equitable, inclusive and sustainable development.<sup>20</sup>

12 See OECD 2011a.

13 World Bank 2012: 2

14 See OECD 2011a: 6.

15 World Bank 2012: 1

16 The terms 'brown' or 'grey' economy refer to 'business as usual', production and consumption patterns without taking into account full costing of natural resources and climate change. The study uses the term 'brown' for both.

17 See [www.greengrowthknowledge.org](http://www.greengrowthknowledge.org).

18 UNEP/ILO 2008: 1. See ILO Decent Work Agenda and the Green Jobs Programme for more information on green jobs and decent work in the green economy.

19 See UNEP/ILO/IOE/ITUC 2008.

20 UNEP 2008: 1

### Private sector development

The private sector plays an important role in green growth and the creation of green jobs. It is a driver of innovation and can change production patterns towards sustainable resource utilisation, green(er) production methods and technology and improved working conditions. Health aspects of work are often closely related to greening, especially in developing countries. These often affect the poor in particular.

## Box 4

### DEFINITION OF PRIVATE SECTOR DEVELOPMENT

**Private sector development** is understood as initiatives promoting economic growth and creation of employment and contributing to poverty reduction in developing countries and countries in transition by developing and/or supporting privately owned enterprises and establishing organisations representing these enterprises. The focus is usually on business environment reform, creating incentives for efficient production, promoting deregulation and competition, improving the legal, judiciary and regulatory environment and promoting macroeconomic stability. In the context of pro-poor private sector development, special emphasis lies on micro-, small- and medium enterprises (MSMEs).

Both green growth and private sector development hold important potential for gender equality and poverty alleviation – especially MSMEs, which account for 50–60 per cent of employment, in particular in developing countries<sup>21</sup>, can play a major role as they form the foundation for national economies and social development at the grassroots. Pro-poor and inclusive green growth should be at the centre of interventions and regulations targeted at greening the economy, especially in developing countries. This implies that the poor – women and men alike – are actively engaged in and directly benefit from the activities that generate economic growth. However, a pro-poor effect can only develop fully, if disadvantaged social groups – women as well as men – can participate equally in economic development and growth processes. Furthermore, the income generated has trickle-down effects and benefits entire communities. Yet, even pro-poor initiatives in the green economy sometimes tend to be gender-blind.

## Box 5

### DEFINITION OF GENDER

**Gender** refers to the array of socially constructed roles and relationships, behaviours, relative power and influence that society ascribes to women and men on a differential basis. Gender roles are determined by the social, cultural and economic organisation of a society. Whereas biological sex is determined by genetic and anatomical characteristics, gender is an acquired identity that is learned. It changes over time, and varies widely within and across cultures. Gender roles are also influenced by social and family status, ethnic and religious belonging. Gender is relational and refers not simply to either women or men, but to the social relationships between them. Gender roles are not neutral, but connected to different options, rights and decision-making possibilities. In developing countries, especially amongst the poor, these tend to be in favour of men. However, women or men should neither be conceptualised as a homogenous group. A comprehensive gender analysis takes into account a number of socio-economic factors, such as age, ethnicity, religion or socio-economic status.

**Gender-sensitive or gender-responsive approaches** analyse and address the heterogeneous needs of different population groups and consider the impact of all interventions on these groups throughout the project cycle. They do, not, however, explicitly challenge existing gender roles and norms.

**Gender-transformative approaches** explicitly challenge existing gender relations and expand the scope of action of both women and men.

Women's participation and empowerment in green growth are analysed with regard to increased benefits and reduced inequalities. The benefits of their participation should thus materialise in terms of improved power and decision-making, increased income, access to employment and markets, improved working and living conditions, including health benefits, and gains at household level.

21 See [www.unido.org](http://www.unido.org).

## Assumptions

The study builds on a number of assumptions. The key assumption is that there is no gender-neutral reality. All decisions and interventions – intended or unintended – have different implications for men and women, boys and girls. Women are seen as (potential) drivers of change towards greening, who can and should be enabled to fully participate and also challenge existing consumption patterns. However, one must be careful not to oversimplify and stereotype, as the following example illustrates.

### Case 1

#### OVERSIMPLIFYING GENDER – THE EXAMPLE OF WOMEN IN FISHERY

**Fishery is often perceived as a male domain. Fishers are usually portrayed as men while women are portrayed as fish sellers and processors. However, the picture becomes more complex under closely examination. In some countries, such as Benin, Cambodia, Congo, Mali, Nepal and Thailand, women actively fish or collect fish. In Uganda, for example, women can own boats and hire male crew – even though it is considered a taboo for women to be on board. Worldwide around 33 million women and 28 million men are occupied in inland fishery when post-harvest activities are included. Thus the fishery sector is actually (rather) female-dominated.<sup>22</sup>**

The study hypothesises that gender equality and the economic empowerment of women represent smart economics<sup>23</sup> and an essential prerequisite for countries to achieve sustainable growth and social progress, as the 2012 World Development Report has again recognised.<sup>24</sup> Hence, gender equality is equally vital for green growth. However, the scope of this study emphasises the potential for women's participation in the green economy, and particular implications or interventions for men are therefore not considered – however relevant they might be.

Another assumption is that green growth and green policies have the potential to create new opportunities for growth and prosperity while avoiding irreversible and costly environmental damage. According to the World Bank, green growth fosters these opportunities through three channels: 1) green growth can help to increase the amount of physical, natural, and human capital; 2) greening policies can promote efficiency and 3) green policies stimulate innovation<sup>25</sup>. It is assumed that economic growth and social goals, such as gender equality, are not only highly compatible, but also complementary<sup>26</sup>. However, such opportunities are not realised in theory alone. The success will largely depend on corresponding policies and actions ensuring the participation of socially disadvantaged groups.

A further assumption is that both changing demand and the increased availability of green products and services are key factors in fostering the green economy and green(er) supply chains. Hence, both the supply and demand side need to be addressed in the transition to a green economy.

## Methodology

The main research questions to emerge from the scope of the study are as follows:

- Which gender patterns are relevant for women's participation in green growth and green private sector development (PSD)?
- What opportunities and challenges emerge for women's participation in the green economy?
- How can PSD approaches foster women's participation in the green economy?

The study is based on secondary data through a review of existing literature and data, application of a value chain analysis approach and interviews conducted with key experts on gender and green growth in the wider context of PSD.<sup>27</sup> We would like here to acknowledge their indispensable contribution and express our gratitude to them for sharing their expertise, experience and insights.

Even though the protection of the environment and the impact of climate change have been a development concern for some time and corresponding research is increasingly being undertaken, the (coherent) integration of a gender perspective is a rather recent phenomenon and is still absent in many studies. This is reflected in this study, where sex-disaggregated data are often lacking.

<sup>22</sup> Tandon (2012): 14

<sup>23</sup> In 2007, the World Bank Group launched an action plan entitled 'Gender Equality as Smart Economics' to enhance women's economic opportunities. The assumption of the plan is that expanding women's and girls' economic opportunities represent smart economics and the society as a whole will benefit from their economic empowerment.

<sup>24</sup> See UNDP 2008 and World Bank 2011b.

<sup>25</sup> See World Bank 2012: 17.

<sup>26</sup> See World Bank 2012: 2.

<sup>27</sup> See Annex for a list of all experts interviewed and consulted.

The interaction of greening, gender equality and PSD in relation to poverty alleviation is complex. Patterns vary considerably between nations, settings and population groups. Even though some generalisations can and should be made, it is important to acknowledge the complexity and the resulting need for in-depth differentiated situational analyses before developing policies and designing interventions. A holistic perspective is therefore vital. In order to better illustrate the arguments, the study highlights examples of challenges and potentials for women's participation in the green economy.

### Structure

Chapter two of the study introduces gender patterns in various sectors relevant to women's participation in the green economy. These areas include education, the labour market, entrepreneurship and the business environment, sustainable consumption and public policies.

Chapter three applies a value chain approach in order to analyse opportunities and challenges for women's participation in greening. Two different sectors are analysed in depth, namely cotton and tourism, as productive and service sectors respectively. The focus is on both greening and employment distribution for men and women along the value chain, indicating participation levels. This includes considering the benefits that materialise and reduced inequalities in their choices and decisions to participate in the value chain.

Green growth and green job patterns vary significantly between sectors, continents and countries, as they depend on specific environmental pressure points, climate change patterns, prevalent gender inequalities and labour market conditions. Chapter four introduces some common patterns and strategies, based on issues identified in chapters two and three.

Recommendations are formulated at the end of the study in chapter five. These are directed at governments and policy makers, development practitioners, the private sector, civil society and research institutions and academia.

### Target groups

The study is mainly targeted at development practitioners, policy makers and governments as well as other stakeholders involved in the international debate on green economy and climate change. We hope the results will enrich the ongoing debate around green growth and women's participation. A shift towards a just and inclusive green economy requires structural and economic changes as well as a change in the mind-set of the private and public sector, producers, consumers and development actors. We also wish to underline that the transition to a green economy will, if undertaken with the required seriousness, potentially create more opportunities than risks – for men and women in the industrialised, developing and emerging countries and future generations alike.



# 2

## Factors influencing women's participation in green growth

Gender equality is acknowledged as smart economics.<sup>28</sup> It can enhance productivity, improve development outcomes for future generations, and increase the quality of societal policies and institutions, including more representative decision-making.<sup>29</sup> This has gendered implications. Giving women power at local level through the implementation of quotas leads to increases in the provision of public goods, both female preferred ones such as water and sanitation and male-preferred ones such as irrigation and schools.<sup>30</sup> Several studies indicate that gender equality and women's participation lead to economic growth, while a lack of women's participation results in a decline of growth rates, as many of the examples presented below illustrate. For example, gender inequality in education and employment is estimated by the World Bank to have reduced per capita growth in Southern Africa by 0.8 per cent annually in comparison to the economic potential with gender equality.<sup>31</sup>

One major finding of this study is that the obstacles limiting women's participation in the green economy are similar to those in the brown economy. Gender patterns and key factors that are prerequisites for women's participation in economic activities are explored, namely, education and skills development, the labour market and business environment for entrepreneurs in particular. However, these factors are not always specific to the green economy. Whenever possible, we provide examples and highlight the implications for women's participation in the green economy. Furthermore, the different consumption patterns of women and men and the impact of government policies and actions that have an impact on both gender and greening are also examined.

### 2.1 General gender patterns

Inequality between women and men is one of the most persistent inequalities in the world. Socially constructed gender roles and the corresponding division of labour are embedded in cultures and traditions – and these take considerable time to change. However, when analysing gender patterns, it is important to consider the 'intersectionality' of various characteristics: not only gender, but also other identity categories such as ethnicity, age and the socio-economic background determine to a large extent the vulnerability and resilience of women and men. Hence, in order to increase women's participation in green growth, these intersecting characteristics need to be addressed and – where they lead to inequality of opportunities – deconstructed in order to achieve a more balanced and just green economy. Furthermore, unintended impacts must be assessed. Gender-based violence might for example increase due to a shift in power relations as a result of the promotion of women. It is therefore important not to work with women in isolation, but engage the wider community, including men.

#### Key factors fostering gender segregation in the economy

The World Development Report 2012 – Gender Equality and Development identifies three main factors which foster gender segregation in access to economic opportunities: gender differences in time use; gender differences in access to productive inputs; and gender differences stemming from market and institutional failures. Gender segregation in access to economic opportunities, such as productive inputs, in turn reinforces gender differences in time use and in access to inputs, and perpetuates market and institutional failures.

The interaction of these three factors forces women into low-paying jobs and low-productivity businesses. These factors therefore must be addressed in order to increase women's participation in the green economy.<sup>32</sup>

28 In 2007, the World Bank Group launched an action plan entitled 'Gender Equality as Smart Economics' to enhance women's economic opportunities. The assumption of the plan is that expanding women's and girls' economic opportunities represent smart economics and the society as a whole will benefit from their economic empowerment.

29 See World Bank 2011b: XX.

30 See World Bank 2011b: XX.

31 See World Bank 2001: 4.

32 World Bank 2011b: 201

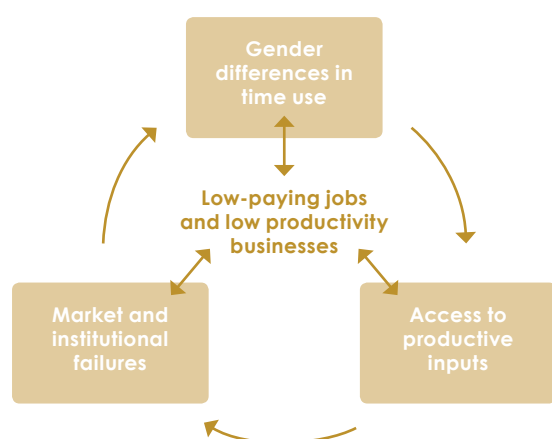


Figure 2: Interaction of factors fostering gender segregation

SOURCE: AUTHORS, AFTER WORLD BANK 2011B

### Time burden

The major factor determining gender differences in time use is care responsibility. Women dominate as care providers, both in unpaid care work in the home and in paid care jobs at the low end of the pay scale. The value of women's unpaid work in the home is illustrated by the fact that poor women account for about 75 per cent of all the care received by the world's poor – as these can seldom afford hospital care and for the most part have to rely on being cared for at home.<sup>33</sup> Unpaid work performed by women is one of the biggest contributions that women make to the economy. In Canada, for example, unpaid work is estimated to be worth 41 per cent of GDP.<sup>34</sup> At the same time, reduced time burden for women has an immediate impact on their economic participation: in Tanzania, reducing time burdens of women could increase household cash incomes for smaller coffee and banana growers by ten per cent, labour productivity by 15 per cent and capital productivity by 44 per cent<sup>35</sup>.

The other two factors illustrated in the figure above – their root causes and their implications for a green economy – are further explored below.

## 2.2 Education

### Primary and secondary education

Although a positive trend can be observed worldwide, still more than two-thirds of the 780 million world's illiterate adults are women.<sup>36</sup> Today, most countries have attained gender parity in primary and secondary education, with an equal number of boys and girls in school. Despite significant progress, gender disparities have not entirely disappeared. In some coun-

tries – especially in the developing world – and among certain groups within countries (e.g. some ethnic groups or rural populations), girls are still the last to enrol and the first to drop out of school.<sup>37</sup>

Raising female education levels and literacy rates is one of the most effective investments for increasing productivity and enhancing the well-being of families and children. Greater education of girls reduces birth rates, lowers infant and child mortality rates and increases the general health situation of the next generation. Primary education for women increases their labour force participation and income, fosters educational investments in children, and thereby improves conditions for future generations.<sup>38</sup> For example, in Pakistan, even a single year of maternal education leads to children studying an additional hour daily and to higher test scores in school<sup>39</sup>.

### Tertiary education

In tertiary education, a clear bias in favour of women is emerging. On a global scale, college enrolments increased sevenfold for women over the past three decades, as against fourfold for men.<sup>40</sup> Even though the gender gap is decreasing, participation in tertiary education is generally low in developing countries. Therefore increased participation in tertiary education is necessary for both women and men as a precondition for green growth. At the same time, other inequalities such as income or the rural-urban divide in tertiary education need to be addressed.

### Field of study

However, in order to increase women's participation in the green economy, it is not only the level of education that matters, but also the content. Significant and persistent gender patterns gaps remain in regard to what men and women choose to study. These educational streams are relatively stable in both developed and developing countries. Generally speaking: women learn how to become teachers while men study engineering. These choices have repercussions for occupational choices, productivity and income: gender differences in occupation and sector of employment account for 10–50 per cent of the observed wage gap in 33 developing and emerging economies.<sup>41</sup>

33 World Bank 1999: 93

34 See UNPAC, [www.unpac.ca](http://www.unpac.ca).

35 See Blackden and Bhanu 1999.

36 World Bank 2011b: 106

37 World Bank 2011b: 106

38 OECD 2008: 43

39 World Bank 2011b: 106

40 World Bank 2011b: 108

41 World Bank 2011b: 115

## Box 6

## GENDER SEGREGATION PER FIELD OF STUDY

| Field of study                               | Proportion of countries where the field of study is |                     |              | Number of countries |
|--|---|---------------------|--------------|---------------------|
|  | FEMALE-DOMINATED<br>%                               | MALE-DOMINATED<br>% | NEUTRAL<br>% |                     |
| Agriculture                                  | 3   | 74                  | 22           | 89                  |
| Education                                    | 84  | 6                   | 10           | 97                  |
| Engineering<br>Manufacturing<br>Construction | 0   | 100                 | 0            | 97                  |
| Health and welfare                           | 82  | 4                   | 13           | 97                  |
| Arts and humanities                          | 55  | 6                   | 39           | 96                  |
| Science                                      | 13  | 68                  | 20           | 96                  |
| Services                                     | 21  | 59                  | 21           | 87                  |
| Social sciences<br>Business<br>Law           | 23  | 16                  | 61           | 97                  |

SOURCE: ESTIMATES FROM THE WORLD BANK BASED ON UNESCO INSTITUTE FOR STATISTICS 2012

The Green Jobs Initiative by ILO, UNEP, IOE and ITUC investigated skill needs for greener economies through a global research project. In South Africa, for example, the following occupations will be required.

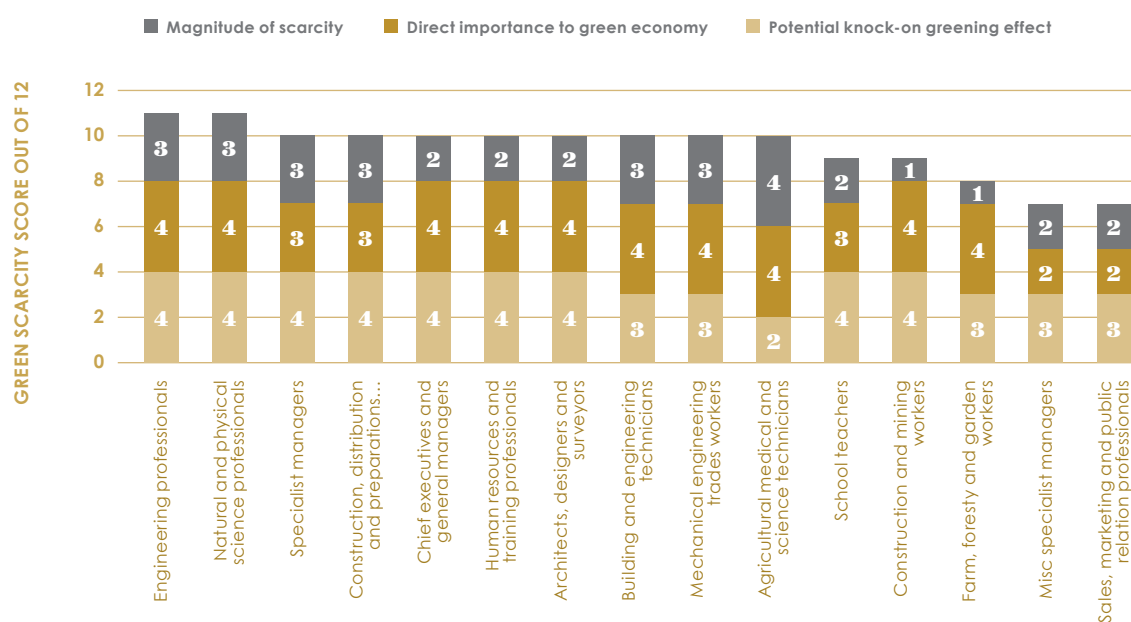


Figure 3: Priority occupations for the green economy in South Africa

SOURCE: ILO 2011A: 155

### Skills for green jobs

When assessing women's potential participation in the green economy, their preferred fields of study must be compared to the specific skills and professions most urgently required in the green economy, as indicated above using the example of South Africa. These professions (such as engineering, sciences, management, construction ...) are often still male-dominated. Both educational level and the choice of subjects are therefore crucial for increasing female participation in the green economy, especially in highly technological professions such as engineering or the sciences.

However, there is also enormous potential for job generation targeted at the poor, e.g. through developing climate-resilient infrastructure and adaptation investments, especially in the urban building and transport sectors. In most cases, the assets created or refurbished through these jobs continue to deliver benefits that can be harnessed by the poor for continued improvements in their well-being. Examples can be found in many public employment initiatives, such as South Africa's *Working for Water* or the creation of green microenterprises in ecotourism in Kenya.<sup>42</sup>

### Skills development

In order to realise the potential for job creation or transformation inherent in green growth, adequate skills development is a prerequisite. This will include new skills necessary for new occupations as well as changes of skills, requiring retraining. Skill gaps are already recognised as a major bottleneck in a number of sectors, especially relating to renewable energy, energy and resource efficiency, green building and retrofitting, environmental services, and green manufacturing. Green job skills development is not only reactive. The development of green skills can itself be an important driver for the promotion of both enhanced gender equality and green growth.<sup>43</sup>

Additional incentives, specific actions and programmes will be needed to increase women's participation in such professions. Without specific actions and programmes, the recruitment of women in technical professions will not increase rapidly enough to meet the growing demand of the green economy. This particularly applies to science and technology related professions.<sup>44</sup> Women in particular benefit from improved technical and vocational education and training. Such programmes should focus on the specific needs of the green economy and greening technologies and better coordination of information, thereby filling the skills gap and occupying employment niches.

There is a need to provide both new skills for women and men entering the labour market and acquisition opportunities for new skills to those at risk of losing jobs in high-emissions industries. Training response measures will have to be established in order to fill the skills gaps. These will be successful when coherent across policy domains, systemic and systematic, and targeted at disadvantaged groups, including women. However, these training measures can only be effective if based on early and correct identification of skills needs and if they address existing gender patterns.<sup>45</sup>

While part of the problem is embedded in the educational system, these patterns are reinforced by gender norms in households and markets. Other gender norms relate to the persistence of employers' attitudes towards family formation and childbearing. Hence, equal gender participation in different fields of study requires simultaneous changes in households, markets, and institutions in order to secure equal opportunities for women.

When formal education is gender-biased, informal approaches to increase the level of education and skills needed potentially bridge the gap. This is illustrated by the example of the Barefoot College.

42 See UNEMG 2011: 88.

43 ILO 2011a: 1. See also ILO 2011b, ILO 2011d on skills.

44 OECD 2008: 26

45 See ILO 2010: iii.

## Case 2

### WOMEN'S PARTICIPATION IN RENEWABLE ENERGIES

The Barefoot College in India is a non-governmental organisation established in 1972. The objective is to support rural poor communities in becoming self-sufficient and sustainable. The College curriculum covers a variety of areas, such as solar energy, green architecture, rainwater harvesting, education, rural handicraft, health care, communication and wasteland development.

The Barefoot solar programme has been pioneering solar electrification of rural, remote, non-electrified villages since 2005. It has adopted a genuine women's empowerment approach through capacity building. Exclusively poor (semi-)illiterate women, preferably 'grandmothers' are trained as solar engineers, following experiences where men had migrated, e.g. to the cities, after being trained. The approach of the Barefoot College demystifies solar technology. In its worldwide implementation, the College partners with local NGOs. However, local communities lead the process. At an initial village meeting, a committee of three women and two men is chosen to manage the programme. This committee chooses in a participatory process those to be trained as solar engineers for six months in rural India. They decide on the collection of the contributions for the electricity, from which the engineers are paid a salary upon return. Community contracts are drawn as part of the meeting.

The women, jointly with other women from all over the world, build the solar kit for their communities themselves,<sup>46</sup> also learning how to maintain and repair it. Furthermore, scale-up of the knowledge is secured, as the women are trained to train. USD 50,000 are required for the solar electrification of around 100 households, including two years' spare parts and the full equipment and solar panels for a community workshop. Others can be trained there to become engineers. The building must be provided by the community, also accorded at the initial community meeting.

The effects have been enormous: the availability of light impacts positively on education, productivity, rural entrepreneurship, gender relations, and even reduces infant mortality rates. The women are empowered and recognised by the community, based on their knowledge as a unique skill. The Sierra Leonean Government, based on the electrification by their own Barefoot solar engineers, requested and supported the replication of the Barefoot approach through the first African Barefoot College in Sierra Leone.<sup>47</sup>

## 2.3 Labour market

Gender differences remain in productivity and income across different sectors and jobs. Worldwide, many women appear to be caught in a productivity trap: 'working hard on an uneven playing field with unequal access to productive inputs'.<sup>48</sup> The resultant costs are significant for women's welfare and economic empowerment. Gender differences in labour productivity are primarily the result of differences in the economic activities of women and men. Indeed, men's and women's jobs differ greatly, across sectors, industries or occupations. While these differences evolve with economic development, the resulting changes in the structure of employment are not significant enough to eliminate employment segregation by gender. The shift from a brown to a green economy should integrate a decent work agenda. The green labour market offers opportunities to address some of the existing gender inequalities.

Worldwide, women appear to be concentrated in low-productivity jobs. They tend to work on smallholder farms, run micro- or small businesses and are over-represented in the informal sector. Gender inequalities determine both their involvement and their actual benefits from these jobs. While women constitute about half of the agricultural labour force, they have less access than men to productive assets and financial services. This has severe implications for women, but also for the entire economy. For example in Kenya, giving female farmers the same level of agricultural input and education as men could increase the women's yields by more than 20 per cent<sup>49</sup>.

Since women are overrepresented in informal and unprotected work, these areas should also be considered when analysing the potential for women's participation in greening. A sector with potential for both greening and increased participation and improved working conditions for women is waste management.

46 The basic solar equipment comes from India.

47 Interview Barefoot College. See [www.barefootcollege.org](http://www.barefootcollege.org). A similar approach is followed by the not-for-profit company Grameen Shakti in Bangladesh.

48 See World Bank 2011b: 19.

49 World Bank 2001: 4.



## Case 3

### WASTE MANAGEMENT AND RECYCLING IN EGYPT

The Association for the Protection of the Environment (APE) is an Egyptian non-governmental organisation founded in 1984 in order to work with the informal garbage collectors of Cairo known as the 'zabaleen'. Its goals are both to improve their living standards and protect the environment by promoting waste reduction, reuse and recycling initiatives. The zabaleen handle at least 40 per cent of household waste and recycle 80 per cent of the collected garbage of the 20 million inhabitants of Cairo. This is a much higher diversion rate than in most cities in Europe and North America.

APE applies a holistic approach through, firstly, income-generating projects incorporating recycling technologies, e.g. in rug weaving, patchwork, paper recycling and handicrafts. The innovative approach, i.e. the 'learn and earn' programme, provides women with skills and empowers them. Secondly, APE implements social upgrading projects in several areas such as basic health care, occupational health and education. Educational activities include adult literacy classes and a Children's Club, as well as scholastic improvement classes for children in primary education.

With the support of volunteer engineers, APE designed eleven different types of recycling machines, which support environmentally sound solid waste management. Young zabaleen men are trained in the construction, use and maintenance of the machines. Recycling of plastic, which is usually deemed unrecyclable, is also supported. The plastic is melted at very high temperatures and combined with sand. The outcome is a sturdy product that is used for manhole covers, bricks and sheeting for construction sites.

APE supports women and men, girls and boys. Training and income-generating activities are usually in accordance with existing gender roles and norms: for example, women focus on patchwork, men use recycling machines. APE's programmes and services have directly and indirectly impacted the two zabaleen communities in Cairo in the districts of Mokattam and Tora. The income-generating activities of APE have become comparable to a medium-sized enterprise. The association employs approximately 200 staff. Work-at-home opportunities have been offered to over 1,500 women and men. The lives of many women and girls have improved and are now being sustained.<sup>50</sup>

### Transition from school-to-work

Gender segregation in respect of the labour market can first be observed during the transition phase from school to work. The transition tends to discriminate against women in terms of work opportunities<sup>51</sup>. First, many female-dominated jobs are characterised by precarious employment conditions, lower pay and fewer training and career opportunities. Second, gender discrimination can already be observed in job descriptions and when assessing skills and knowledge for certain job categories. Male-dominated positions tend to be rated as more complex and of higher value than female occupations. Consequently, women often initiate their careers from a retrograde starting position. This holds equally true for green work.

### Working hours and mobility and family-friendly practices

Other gender patterns that negatively influence gender segregation in the labour market and contribute to an overall lower income of women are time constraints, for instance, in terms of working hours. Women are more likely than men to work in jobs with flexible working arrangements (such as part-time or in informal jobs) so that they can combine work with care responsibilities. But these jobs often pay lower wages and offer fewer career opportunities than full-time and formal jobs. Women are also often disadvantaged by a lack of mobility – they usually need to find a job close to home and family.<sup>52</sup>

Family-friendly practices, including paid leave, home-based work, child care facilities and flexible work arrangements, as established in some developed countries, can have net benefits in terms of overall productivity, work performance and growth. This is equally relevant for women's participation in the green economy in developed, emerging and developing countries.

50 See APE, [www.ape.org.eg](http://www.ape.org.eg). Specific data on disaggregated benefits for men and women was not available.

51 OECD 2008: 46

52 World Bank 2011b: 198

## Case 4

### CERTIFICATES FOR FAMILY-FRIENDLY COMPANIES AND INSTITUTIONS

In Germany, combining family and work life is still a challenge, especially for women – though urgently needed due to current demographic developments. Since 1998, the non-profit Hertie Foundation has been conducting an audit and granting certificates for family-friendly private enterprises and public institutions. The certificate has become a quality marker for human resource management. Certified firms observed an increase in high-quality applicants for open positions. Being family-friendly also pays off economically. Current research indicates that employees of family-friendly companies are 17 per cent more productive than those of comparable companies. Hence, family-friendliness has become a competitive advantage and allows women to participate more equally in the labour market.<sup>53</sup>

Such initiatives could provide an incentive for women to engage in green companies if they are considered to offer a family-friendly environment.

### Representation of women in the labour market

Research carried out in the European Union indicates that a more balanced representation of women within each occupation is essential in order to overcome the segregation of the labour market in the long run. Notwithstanding, there is evidence that significant increases in female employment are likely to raise the level of segregation in the short and medium term. A temporary trade-off may arise between the objective of raising women's employment and that of favouring de-segregation. Micro-dynamics govern the relationship between segregation and employment in the short and long terms. In the short and medium term, it may be easier for women to enter growing employment segments, sometimes inflating an already large female cohort and thereby increasing segregation. This is the case, for example, when even women enter the labour market in the area of care work or teaching. However, when the inflows of women into a profession are sufficiently large, some women also end up in niches of relatively male-dominated occupations from where they can branch out in the long run, thus rebalancing the gender composition.<sup>54</sup> This dynamic is especially relevant when considering new and growing segments of the green economy, such as photovoltaic, usually perceived as male and technical.

### The gender pay gap

Another relevant aspect for gender inequalities in the labour market are differences in wages and salaries. In 2008, in OECD countries, women were paid 17 per cent less than their male counterparts. 30 per cent of the variation can be explained by discriminatory practices in the labour market.<sup>55</sup> On a global scale, the gender pay gap is about 15.6 per cent. Women working in the informal sector are excluded from these figures. With the transition to a green economy, constant efforts should be undertaken to reduce these pay gaps.

### Potential for the labour market

Millions of green jobs already exist in the industrialised world, in emerging and developing economies alike. The labour force required to cover the needs of the (emerging) green economy and to green the brown economy is enormous.<sup>56</sup> Conservative figures estimate that globally currently around 300,000 workers are employed in the wind power sector and over 100,000 in the solar photovoltaic sector. In China, USA and Europe, more than 600,000 people are employed in the solar thermal sector – the vast majority of them in China. Almost 1.2 million workers are estimated to be employed in the biomass sector in four leading countries, namely Brazil, the USA, Germany and China. Overall, taking into account available country data from seven countries, the number of people employed in renewables is presently around 2.3 million. Given strong and rapidly rising interest in energy alternatives, worldwide employment is estimated to soar as high as 2.1 million in wind energy, 6.3 million in solar photo voltaic, and 12 million in bio fuels-related agriculture and industry. This represents a possible total employment for renewables of over 20 million jobs by 2030.<sup>57</sup>

However, it must also be acknowledged that there might be job losses in the brown economy so that the net employment creation is limited. Since jobs in the green economy tend to be more productive and better paid than in the brown economy and women are overrepresented in low paid and low-quality jobs, there is a potential that in the short term the shift from brown to green jobs might even lead to net job losses for women. Further gender-disaggregated research on the net employment effects is needed in order to further explore the *de facto* effects of the green economy on women and men in the labour market. Active measures need to be taken to improve the integration of women into the labour market of the expanding green economy and reduce

53 See Beruf und Familie, [www.beruf-und-familie.de](http://www.beruf-und-familie.de).

54 European Commission 2009: 8

55 See OECD 2008a.

56 See and UNEP/ILO/IOE/ITUC 2008: 13: 'Existing and reported green jobs tend to be concentrated in certain countries and regions. This, however, is a reflection of proactive policy initiatives and current investment patterns, rather than inherent to the concept.'

57 See UNEP 2008: 9.

the potential hazards for women's equal participation opportunities. Donors recognise this necessity and are addressing it. German development cooperation, for example, pursues a threefold strategy for the effective promotion of employment, which addresses both labour demand and supply and an improved matching between the two. The three core elements of this approach are a) creating productive and decent jobs, b) promoting employability and c) providing active and effective labour market services.

ILO research has identified a number of promising practices that demonstrate how public policy together with private initiatives can foster green market transformation and job growth. These initiatives, however, focus primarily on equipping young people with the necessary skills to enter the green labour market or on experienced workers to learn the skills required for adopting new technologies, meeting environmental regulations and shifting to renewable sources of energy.<sup>58</sup> There is still potential to integrate a gender perspective and broaden the focus of such initiatives.

Green jobs by definition are supposed to provide decent work in the formal sector. In reality, green jobs do not necessarily imply conditions of freedom, equity, security and human dignity. For example, the working conditions of cane cutters for bio ethanol production in some areas of Brazil are reported to be poor given that extreme physical effort is required<sup>59</sup>. Owing to the many new enterprises in the green economy, the degree of unionisation in the industry tends to be lower than in other sectors. For example, renewable energy cuts across many traditional sectors, hence, a large number of different unions may be involved where workers are unionised – making effective representation challenging.<sup>60</sup>

As entire industries are already experiencing the skills gap for greener production and service delivery, they are key actors in addressing the gap. Industry associations, sector skills councils or chambers of commerce can play a key role in identifying skills needs and developing their own gender-responsive training responses in close collaboration with state actors. Access to information on skills needed could serve as an incentive for women to reconsider their choice of field of study. In France, for example, demands from industry associations have led to a new qualification for renewable energy technicians<sup>61</sup>.

## 2.4 Business environment

Women face several constraints when entering the economic environment as entrepreneurs. These constraints, which include unequal access to productive resources (land, assets, energy, technology and credit) or bureaucratic hurdles, are described in this section. They hinder the full realisation of women's potential and also limit their potential as green entrepreneurs. However, change is possible as the following example shows.

### Case 5

#### REVERSED GENDER TREND – PHILIPPINES

**In the Philippines, the son in the family was traditionally given the family land. As compensation, the girl was usually sent to school. Over time, the Philippines have industrialised and evolved into a much more service-based economy. Women with their educational background are nowadays often located at a higher level in the hierarchy than men. Traditional gender patterns, in combination with changes and developments can importantly influence the evolvement of new gender patterns over time.**<sup>62</sup>

### Female entrepreneurship

Estimates from the Global Entrepreneurship Monitor 2011 calculate that there are 400 million male and female entrepreneurs in 54 developed and developing countries. However, only in eight out of the 54 economies (Panama, Venezuela, Jamaica, Guatemala, Brazil, Thailand, Switzerland and Singapore) are female entrepreneurship rates equal to male.<sup>63</sup> Female participation in entrepreneurship depends on the prevalent gender patterns in the country, as low female participation rates in Iran, Bangladesh and Pakistan show. The Global Entrepreneurship Monitor 2010 Women's Report indicates that of 59 economies only Ghana had more female entrepreneurs than men. The ratio of discontinuance to total business ownership (nascent, new, and established) was highest among women in developing countries.<sup>64</sup> The World Development Report 2012 further indicates that differences in productivity between male-owned and female-owned businesses disappear when access to land and productive resources as well as business size and sector of operation are taken into account.<sup>65</sup>

58 ILO 2011b: V

59 See Zafalon 2007.

60 See ILO 2011c: 5.

61 ILO 2011b: 128

62 Interview with GDI-DIE

63 GEM (2012): 15

64 See Kelley et al. 2011: 6. In the framework of this study, no data could be identified to indicate the ratio of male to female entrepreneurs in the green economy.

65 World Bank 2011b: 203

### Knowledge gaps

In order to enhance women's entrepreneurship, it is vital to improve their access to adequate information and tackle cultural and religious hurdles. Women need to obtain equal access to business development services and networks. Strong women's networks are essential as instruments of empowerment and advocacy, and moreover, women need to conquer existing political and business networks in order to participate equally in economic life. Women's awareness and knowledge of the exigencies of the market, such as norms, standards and quality are often limited. This might be particularly relevant in the green economy where set standards have to be fulfilled to be able to 'label' products as eco-friendly, as is the case with social and environmental standards. Hence, the creation of green women's business networks and peer-to-peer-learning seems promising.

### Bureaucratic hurdles

Research from Kenya shows that women-owned businesses face more severe bureaucratic barriers in areas such as taxation and customs. Women in Kenya make up nearly half of all MSMEs, but they hold less than ten per cent of the available credit.<sup>66</sup> Female-owned MSMEs in Kenya are less likely to be registered than those owned by men. Female entrepreneurs perceive tax rates, tax administration and customs as greater constraints to business growth than men do. This negative perception thus decreases the likelihood that women will register their businesses.<sup>67</sup>

Furthermore, women often receive inadequate support from local authorities and support organisations such as chambers of commerce. Cumbersome business regulations in areas such as business start-up, taxation and customs disproportionately affect businesses owned by women. Evidence from Uganda shows how complex start-up regulations in Uganda provide more opportunities for bribery. Women are more often victims of attempts to extract bribes. They are less likely to formalise their businesses if procedures are lengthy and complicated. Women are seen as easy targets: 43 per cent of female entrepreneurs reported harassment from government officials, while only 25 per cent of all entrepreneurs did.<sup>68</sup>

### Infrastructure

The impact of poor infrastructure on women is often disproportionate and impacts their mobility and consequently their access to markets. Investments in roads, energy and water supply, agriculture and financial services will yield higher economic returns if they are designed to benefit women, thereby increasing their economic participation.<sup>69</sup> Greening could in this context provide additional opportunities for women. For example, energy and water consumption is reduced in the green economy – hence, the impact of poor infrastructure might be less severe. However, transport will remain a prerequisite to access markets for 'green products'.

## Case 6

### INVESTMENTS IN SOLAR ENERGY IN UGANDA

**In Uganda, the FAO/UNDP post-harvest programme recommended small-scale solar dryers for long-term storage and household consumption of fruit and vegetables. However, rural women's groups were more interested in solar dryers for income generation. The 'Fruits of the Nile' company was formed in 1992 to link rural producers with the market for dried fruit in Europe. Within three years, more than 50 women's groups had adopted the solar dryer technology, and in 1995, the company exported more than 50 tons of dried fruit. The initial food security concerns were also addressed. When not drying fruit for profit, the women used the solar dryers to preserve vegetables and fruits for home storage and consumption.<sup>70</sup>**

### Land and property rights

Ensuring women's land and property rights is another way of promoting gender equality and economic opportunity – and is equally relevant for the green economy. A study of ten countries in sub-Saharan Africa concludes that under both statutory and customary law, the overwhelming majority of women cannot own or inherit land, buildings or other property. In many African countries, women have fewer inheritance rights, either by law or by tradition. Women only hold about one per cent of the registered land titles, with five to six per cent of the registered titles being held jointly by married couples<sup>71</sup>. This means that women are often unable to provide the collateral needed to receive business loans from a bank, posing a serious obstacle for women to invest in enterprise development. Hence, gender-responsive legal (business) reforms are

<sup>66</sup> See GTZ 2007: 34.

<sup>67</sup> See Ellis/Cotura 2007: 17.

<sup>68</sup> Women's limited access to finance is another important obstacle to their equal participation in the green economy. It can however not be analysed in greater depth in the context of this study.

<sup>69</sup> GTZ 2007: 13

<sup>70</sup> See Okalebo/Hankins 1997.

<sup>71</sup> See World Bank 2004.



necessary to strengthen women's rights and increase their control over assets – and ultimately enhance their economic participation in the (green) economy.

## Case 7

### LAND LAW BILL AND GENDER IMPACT IN VIETNAM

The Government of Vietnam introduced a new Land Law bill in 2004, granting married women access to joint Land Tenure Certificates (LTCs), the so called 'red books'. The government is deeply committed to the implementation of the law, which facilitates women's access to property titles. It is, however, still completing the change, as some families have no land titles and others still hold old land titles in only one name. Nonetheless, the joint LTCs have improved the situation of women, particularly that of ethnic minority women. Property titles, in both the couple's names, can be used as collateral at a bank for a loan, but not in a unilateral decision. This strengthens the decision-making power of the women on joint assets, which can also be about non-green or green production on the land. Access to bank credits helps families to escape loan sharks. The example shows how laws and regulations can impact women's position positively. This is particularly relevant in the event of death or divorce, where in most parts of Africa, traditionally the husband's family might take everything away from the woman.<sup>72</sup>

### Women entrepreneurs as employers

However, contrary to the common belief that women's businesses do not create employment – particularly regular, paid employment – positive developments are emerging. Examples show that women entrepreneurs do create considerable employment for others, both on a formal and informal basis. However, there is no doubt that gender-based inequalities often prevent women from growing and reaching their full potential as entrepreneurs. A vicious circle of low skill, low productivity and low reinvestment is created: limited resources to hire qualified employees in turn lead to less skilled labour in the business, which is necessary for improved productivity and profitability. This then limits the resources to hire people that may give the business the opportunity to grow.<sup>73</sup>

## 2.5 The payoff

The direct payoff of correcting all of the above mentioned shortcomings is large: ensuring that women farmers have the same access as men to fertiliser and other agricultural inputs would increase maize yields by 11 to 16 per cent in Malawi and by 17 per cent in Ghana. Improving women's property rights in Burkina Faso would increase total household agricultural production by about six per cent, with no additional resources – simply by reallocating resources such as fertiliser and labour from men to women. Eliminating barriers that prevent women from working in certain occupations or sectors would have similar positive effects, reducing the productivity gap between male and female workers by one-third to one-half and increasing output per worker by three to 25 per cent across a range of countries.<sup>74</sup>

## Case 8

### ENERGY-EFFICIENT COOKING STOVES – ETHIOPIA

94 per cent of the people in Ethiopia cook with firewood. As wood becomes scarcer, women must often spend hours searching for it and carrying it home over long distances. Intensive capacity building has led to the establishment of a growing market for energy-efficient biomass stoves. More than 450 stove producers in 225 districts have been trained in technical and business skills, assistance for business start-up has been provided and a network of stove production micro enterprises established. Over 65 per cent of the stove producers were unemployed before joining the Mirt business. 36 per cent of the producers are women – and women are less likely than their male counterparts to quit the business. The project has provided over 134,000 people with modern energy-efficient stoves. They use up to 80 per cent less wood than traditional fire places and thus decrease the burden of firewood collection and purchase, negative health impacts from indoor air pollution – and thus have positive implications, especially for women and children.<sup>75</sup>

72 Interview GDI-DIE; World Bank East Asia & Pacific 2010

73 See Mackie 2007.

74 World Bank 2011b: 5

75 See GTZ 2010b and BMZ 2011.



In many developing countries, small and medium enterprises are the backbone of economic growth. However, there is a need to enable more female entrepreneurs to develop and sustain their businesses beyond the micro-enterprise level into small and medium-sized firms and to overcome the 'informal' status. Researching interventions and approaches to identify promising gender-sensitive examples in the green economy for this study, it became apparent that most projects and approaches seem to be located at micro level. Only in individual cases do they grow into bigger businesses, adding value along the chain.

## 2.6 Sustainable consumption

There are significant global inequalities in consumption. OECD countries, representing 18 per cent of the world's population, account for 78 per cent of world consumption. The poorest five per cent consume 1.5 per cent.<sup>76</sup> Yet, environmental impact hits the world's poorest nations disproportionately and low-income households tend to be relatively more exposed to environmental hazards than wealthier ones.<sup>77</sup>

### Pricing of environmental costs and consumption patterns

Realistic pricing of goods and resources remains a challenge. Current prices omit environmental costs and/or benefits. However, consumer awareness seems to increase and shape the consumption behaviour of men and women differently. The lifestyles of women and men are rooted inter alia in economic conditions, power positions and gender relations, which in turn determine what they can and wish to consume. In terms of resource impacts, women tend to leave a smaller ecological footprint than men due to their more sustainable consumption patterns.<sup>78</sup>

## Box 7

### ECOLOGICAL FOOTPRINT

The 'ecological footprint' estimates the amount of land and ocean required to sustain one's consumption patterns. The footprint is measured in 'global hectares', which are standardised units that take into account the differences in the biological productivity of various ecosystems impacted by consumption activities (food, goods, services, housing, energy and waste absorption). The footprint is broken down into four ecosystem types: cropland, pastureland, forestland and marine fisheries.<sup>79</sup>

Whether rich or poor, men tend to live more resource-intensively and less sustainably than women. While it is estimated that women make over 80 per cent of consumer purchasing decisions, men spend over 80 per cent of household income<sup>80</sup>. However, this is changing as women gain more economic and market-place power. These patterns of consumption not only reflect the differing financial means at the disposal of men and women, but also their broader orientations towards society and conceptions of self-identity. Men are more likely to eat out than women, consume more alcohol and tobacco, and spend more on transport and sport. Assessments find that girls report higher levels of concern for the environment than boys and a greater sense of responsibility for sustainable development, starting as young as 15. Although consumer choices are influenced by income levels, social conditions and biases, gender is also a major factor. In their consumption choices, women throughout their lives affirm their reproductive role and concern about the longer-term well-being of families and children.<sup>81</sup>

<sup>76</sup> See World Bank 2010.

<sup>77</sup> See Ghertner/Fripp 2007 and OECD 2006.

<sup>78</sup> OECD 2008: 65

<sup>79</sup> See [www.footprintnetwork.org](http://www.footprintnetwork.org).

<sup>80</sup> OECD 2008: 65

<sup>81</sup> OECD 2008: 67

## Box 8

### ETHICAL CONSUMERISM AND CONSUMER MOVEMENTS

In recent years, a rise in ethical consumerism has been observed. Ethical consumerism is the intentional purchase of products and services the consumer considers to be made ethically, without exploitation of humans, animals or the environment. There are several new forms of ethical consumerism, which go beyond buying ethical products, but reflect the paradigm shift on which the idea of a green economy is based. Such movements include non-profit consumer watchdog organisations, the slow food movement or (internet-based) local exchange platforms (such as [www.frents.com](http://www.frents.com)) or time banks.

Gender patterns also exist in ethical consumption. Research indicates that women in industrialised countries are more likely to recycle, buy organic food and eco-labelled products and place a higher value on energy-efficient transport. They make more ethical consumer choices, pay more attention to issues including child labour and sustainable livelihoods and are more apt to buy socially labelled goods such as Fairtrade. Interestingly, such consumption patterns are not primarily a matter of income. In Sweden, statistics indicate that the most concerned about eco-labelling and green purchasing include some of the poorest members of society: for example single mothers.<sup>82</sup>

## 2.7 Challenges and opportunities for government approaches

The topic of women's participation in green growth connects policies and corresponding action plans with regard to a range of issues, such as gender equality, the labour market, entrepreneurship and greening. These must be analysed in conjunction in order to adequately address gender patterns, including hindering and enabling factors in the green economy. The systematic eradication of all forms of discrimination against women, particularly with regard to women's access to, control over and ownership of land and the safeguarding of their property rights is critical to ensure women's economic and social participation. Investments in time-saving infrastructure are also essential.

## Case 9

### GREENING POLICIES IN SOUTH AFRICA

South Africa is the world's eleventh largest emitter of CO<sub>2</sub> from energy consumption and is also in the upper quartile of countries on CO<sub>2</sub> emissions per capita. At the same time, the South African economy has suffered against the backdrop of slowing global economic prospects leading to a lower GDP (3.2 per cent) in 2011 and lower forecast for 2012 and 2013.

In 2008, in light of these developments, South Africa launched a USD 7.5 billion fiscal stimulus package covering the period 2009–2011. Around eleven per cent of this package (USD 0.8 billion) was allocated to environment-related themes, such as railways, energy-efficient buildings and water and waste management. In March 2009, the government announced a binding climate change policy within three years to cap emission growth by 2020–25. The country plans to generate 15 per cent of its electricity from renewable sources by 2020 and enhance energy efficiency. A *Green Economy Accord* signed by the government and social partners in 2011 lays out an ambitious and far-reaching agenda to build and grow the green economy. Green skills development has been identified as a key focus area. However, financial and human resources have not yet been allocated in proportion to rapid developments in policy.<sup>83</sup>

According to the World Bank, the pursuit of green policies can have major direct environmental and economic benefits for South Africa, but also incur costs. Benefits with regard to growth and job creation will not follow automatically and need to be backed up by complementary reforms and policies. These should be developed in close partnership between civil society and government and designed to reduce potential trade-offs between the environment and the economy. The World Bank report emphasises that 'there is no single 'silver bullet' that will by itself deliver both growth and environmental protection: it usually makes sense to use multiple policy instruments to pursue multiple policy objectives – in this case growth and environment – targeting each objective with the instruments most suited to it.<sup>84</sup> In order to ensure benefits for both women and men in the process and limit the social costs of the transition, a profound gender-sensitive impact analysis is needed. Such an analysis must assess two social concerns: how environmental quality is distributed across different members of society and how the financial effects of environmental policies are distributed. Only then will it be possible to ensure that these policies and instruments will increase gender equality and enhance women's participation to make inclusive and pro-poor green growth a reality.

82 See OECD 2008: 65.

83 See [www.ngo.grida.no/soesa/nsoer/issues/politic/index.htm](http://www.ngo.grida.no/soesa/nsoer/issues/politic/index.htm).

84 World Bank 2011a: 3

While most countries have initiated some environmental policies, few have put in place skills development strategies and the corresponding human and financial resources needed to implement them. In least developed countries, skills development strategies are rarely included in national climate change adaptation plans. The reasons for this include weak coordination between sectors, in particular national planning and labour ministries, and a lack of adequate resources and institutional capacity to implement such strategies. Even where such strategies exist, they tend to neglect gender dimensions<sup>85</sup>.

Gender-blind strategies are consequently often the outcome of well-intended processes, with negative impacts on gender equality in general and women in particular. Gender-sensitive and transformative policies and instruments are needed to address these gender and racial disparities. So far, greening policies have not been analysed in terms of their impact on gender equality or with regard to the inherent opportunities or potential obstacles they might create for women. To avoid burdens and negative impacts and to realise the full potential for women's participation in green growth, further research is required.

## 2.8 Summary:

### Factors influencing women's participation in green growth

This chapter has illustrated that the gender disparities that exist in the brown economy also limit women's participation in the green economy.

Among the limiting factors are:

- gender differences in time use
- gender patterns in education and skill development
- gender patterns in access and participation in the labour market
- limited access for women to productive inputs.

These obstacles are rooted in market and institutional failures, e.g. bureaucratic hurdles and discriminating legal frameworks, such as discriminating property rights or credit provisions.

The gender dimension of consumption patterns could possibly serve as an entry point for enhanced women's participation in the green economy both as consumers and beneficiaries of a greener economy.

The social dimensions – in particular the impact on women and men – of environmental policies and green growth strategies must be further investigated. Given the vast global differences amongst economic, social and cultural systems, social impact analyses are required for each specific context.

85 See ILO 2011a.

# 3

## Making women's participation in green growth a reality: two value chain examples

PSD in developing countries holds potential for inclusive green growth, including the equal participation of women through facilitation of access to markets and information, support for innovation and business adaptation. Whether this potential is fully achieved depends on a myriad of factors, as discussed in chapter 2. These are equally valid for specific value chains, often supported as part of PSD efforts.

For the purposes of this study, examples from agriculture (cotton) and tourism have been chosen. Both have been identified as relevant to PSD, green growth and gender.<sup>86</sup> Additionally, cotton is the most important non-food cash crop, a commodity grown by farmers, stemming to 99 per cent from developing countries, where 75 per cent of the world's overall output of cotton is produced.<sup>87</sup> It thus has enormous importance for developing countries and their populations. Tourism has been chosen as a service sector with numerous supply chains creating a system and differing thus from a more obvious productive value chain. These examples illustrate experiences, opportunities and challenges relating to green growth and gender equality in more depth and are complemented by other cases described throughout the study.

### 3.1 Greening and women's participation in the cotton value chain in West Africa

Africa's share of the cotton trade has doubled since the 1980s. In some developing countries, cotton constitutes one of the main sources of income for (small-scale) farmers. It accounts for about 40–60 per cent of the GDP in West African countries like Burkina Faso, Benin, Mali, Chad and Senegal.<sup>88</sup> Internationally, cotton is mainly used for apparel, but also for home textiles and furnishings.

#### Box 9

##### VALUE CHAIN APPROACH: A DIAGNOSTIC TOOL

In the following, a value chain approach is used as a diagnostic tool. The greening potential and the potential for women's participation are shown for (parts of) two value chains. Value chains contain different functional nodes. These include all activities, resources and inputs needed from production and processing to trading, transporting or retailing. Value (and cost) is added to the product in transformational processes, as it 'flows downstream' in the value chain.

The diagnostic power of the value chain approach lies in the possibility of combining an analysis of economic interrelations as well as the participation and benefits of the actors involved. It thereby allows a holistic view on how win-win outcomes for all actors involved in the chain can be generated. It can reveal to what extent gendered participation is realised and who benefits, for example through participation, voice and/or income. Critical issues can be examined related to environmentally and resource-efficient practices and the differentiated analysis of the actual and potential integration of men and women. With a thorough analysis of a value chain, (green) market-led interventions can be designed to either generate or strengthen livelihoods and opportunities for the poor, taking into account men and women alike.

Green growth can be created in new sectors and through the development of new products (e.g. renewables) and new value chains. It can likewise be generated in existing value chains, at different nodes – as part of an upgrading strategy or climate change adaptation or mitigation strategy. Greening can alter the production process, the final product, cooperation and gender relations in a value chain.

<sup>86</sup> Renewable energy has not been chosen due to its broad coverage in the framework of the climate change agenda.

<sup>87</sup> EJP 2007: 3. When referring to farmers, both men and women are included. The lack of sex-disaggregated statistics or analysis unfortunately impedes a thorough gendered analysis at all times.

<sup>88</sup> Organic cotton, [www.organiccotton.org](http://www.organiccotton.org).

### 3.1.1 The cotton value chain

The entire value chain of cotton, whether conventionally or organically grown, consists of different nodes. These relate to the production, processing, manufacturing and retail stages. The cotton segment includes primary production and ginning as a first processing step. The textile segment covers all nodes up to the consumer. The textile processing nodes can either be industrial or handicraft. Each stage involves different types of processes, actors, inputs, technologies and labour. Figure 4 shows a general cotton value chain, which does not reflect greening or gender aspects. This value chain might differ in its details across countries.

Over 10 million male and female-headed households depend directly on income from cotton production in Central and West Africa, including the West African Cotton 4 – Benin, Burkina Faso, Chad, and Mali<sup>89</sup>. Mostly cotton-growing farmers are small-scale, working on 0.5 to two hectares. The main nodes of the cotton value chain covered in West Africa are production and ginning. The textile segment of the cotton value chain is mainly completed in Asia, much of it in India. Although a primary producer, West Africa is not significantly involved in the highly mechanised downstream textile production.

### 3.1.2 Cotton production: greening and women's participation

Each node of the value chain bears its own potential for greening and impacts on gender patterns and equality. In general, greening and gender equality include direct and indirect effects, influencing each other. Environmental issues and effects in cotton production are mainly determined by its primary production, relating to how and with which inputs cotton is grown.

Conventional cotton growing involves vast amounts of insecticides and herbicides. It covers 2.5 per cent of the world's cultivated land but uses 16 per cent of global pesticides. It is therefore probably the most agrochemical-intensive crop.<sup>90</sup> The World Health Organisation has classified three of the agrochemicals used as extremely hazardous.<sup>91</sup> The environmental impacts of conventionally grown cotton are vast and affect the local population, flora, fauna and natural resources in cotton-growing areas. Water is possibly the most important natural resource for women, as it is life-dependent and it is they who traditionally take care of their families in most cotton growing countries. Preparation of food and other tasks all include the need for fresh and clean water.<sup>92</sup> Cotton is also a water-intensive crop. Roughly 20,000 litres of water are required to produce approximately one kg of the cotton needed for a pair of jeans<sup>93</sup>.

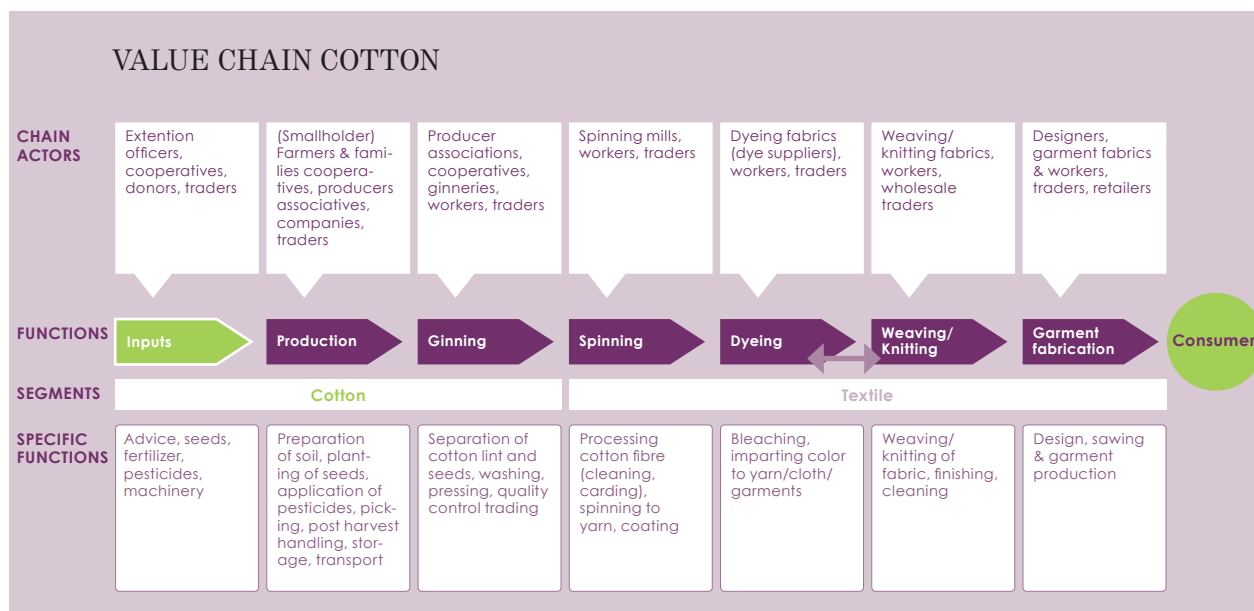


Figure 4: General cotton value chain – functions, segments and actors

<sup>90</sup> EJF 2007

<sup>91</sup> UNDP 2010, p. 21. Some measures have been taken to decrease the health and environmental risks in conventional cotton, including the Rotterdam Convention which came into force in 2004. Some countries have also banned certain agrochemicals. Nonetheless, high risks for farmers, groundwater, drinking water, flora and fauna and soils prevail.

<sup>92</sup> See Tandon 2012 for more.

<sup>93</sup> UNDP 2010: 14



## Box 10

### ENVIRONMENTAL AND SOCIAL IMPACTS BY CHEMICAL USE IN COTTON PRODUCTION

- 1 kg hazardous pesticide is applied per hectare of land in cotton production.
- High numbers of poison victims (1–3 per cent of all agricultural workers in cotton/year) and deaths.
- Natural habitat disruption by extensive agrochemical use (e.g. animals poisoned or killed).
- Contamination of other agricultural produce in the area and resistances in crop pests.
- Chemicals contaminate surface water, rivers and groundwater.
- Protein-rich remains are fed to animals: residue of pesticides enters the food chain.
- Short fibres of cotton and 'gin trash' are used for cosmetic products (e.g. sanitary napkins and tampons).
- Hazardous pesticides applied during cotton production can be traced in cotton clothing.
- Cotton, conventionally grown in monoculture, causes soil erosion and degradation.<sup>94</sup>

Against this background organic cotton is considered an appropriate means to support economic, social and environmental development in regions where poverty prevails and climate change has a negative impact on biodiversity and land management. Therefore, organic (and also Fairtrade) cotton production and trade is supported by a number of development partners in developing countries. The Swiss development organisation Helvetas, for example, jointly with other partners, supports programmes with that aim in West Africa and Central Asia.<sup>95</sup> Its BioCotton Project in Kyrgyzstan started in 2004 with 58 farmers in conversion.<sup>96</sup> The numbers of farmers involved in organic cotton have increased considerably since 2004, as has women's participation. From the following numbers it is evident however, that it still does not equal that of men. In Kyrgyzstan, at the end of 2009, 765 farmers were contracted organic farmers. 25 per cent at farm manager-level were women. The programme in Burkina Faso also started in 2004 and is coordinated with the National Union of Cotton Producers of Burkina Faso (UNPCB), the umbrella organisation of producer associations. 7,000 producers were producing organic cot-

ton in 2009, 28 per cent of them women.<sup>97</sup> This increase is considerable, as comparison of groups of organic and conventional cotton growers in Burkina Faso shows that women were absent in conventional cotton. Yet, in Kyrgyzstan, women were growing conventional cotton, revealing varying gender patterns and characteristics in different continents and countries. Even within communities in the same country and region, significant differences can be encountered; in-depth gender analyses in PSD interventions are therefore required.

### Organic cotton: a green alternative with gender impacts

Organically grown cotton impacts positively on the (economic) participation of women, family health and on food security.<sup>98</sup> Altering the cotton value chain through conversion to organic cotton at production level represents a substantial greening potential. At the same time, organic cotton creates the main entry-point for women into the production of cotton as a cash crop in West Africa. Traditionally, cotton in West Africa is regarded a man's crop due to the extensive use of agrochemicals and its health implications. Men consequently usually run conventional cotton farms.<sup>99</sup>

### Benefits of organic cotton

Demand is usually a key factor in driving production, but producers ultimately decide whether a conversion to organic cotton is attractive to them. Organic cotton farmers in both Burkina Faso and Kyrgyzstan state three main perceived benefits to conversion from conventional to organic cotton production: (1) higher prices for the cotton (economic benefit), (2) improved health and (3) increased soil fertility.<sup>100</sup>

Organic cotton has allowed women in West Africa to benefit economically, to generate (and ideally control) income from growing the cash crop cotton. This new source of income is even more important for widows or female-headed households. Organic cotton achieves around 10–20 per cent higher prices for the producer. Additionally, total production costs are estimated to be lowered by around 10–20 per cent<sup>101</sup>. If the cotton is organic and additionally Fairtrade certified by Fairtrade Labelling Organisations International (FLO,

94 See EIJF 2007 and study results of Technical University Lodz, Poland, 2004.

95 Helvetas Swiss Intercooperation is a Swiss development organisation. The Swiss State Secretariat for Economic Affairs (SECO) supports organic and Fairtrade cotton programmes in Burkina Faso, Benin, Mali, Senegal, Kyrgyzstan and Tajikistan. See: [www.organicandfair.org](http://www.organicandfair.org), OFCC.

96 No sex-disaggregated data available. Conversion from conventional to organic cotton usually requires 1–3 years of organic production before certification. Before certification farmers have much lower input costs but also lower yields and do not receive the higher price for organic cotton.

97 See Pineau 2009. An assessment of the economic, social and environmental impacts of organic cotton by comparing groups of conventional and organic cotton growers was conducted at the end of 2008 in Burkina Faso and at the end of 2009 in Kyrgyzstan (Bachmann 2010) by the University of Bern. The results are used in this chapter to show differentiated impacts of organic cotton production on women and men where possible.

98 Organic cotton production started in the early 1990s in Turkey. Applied integrated farming and pest management strategies and even the use of genetically modified (GM) cotton might well reduce the use of pesticides. However, organic standards do not allow for the use of GM cotton. The (ethical) debate about the general viability and on different practices in farming can however not be addressed in this study.

99 Hammer (n.d.): 1. Women overall spend more time on collecting water and collect higher volumes of water than men. See FAO 2008.

100 Bachmann 2010 & Pineau 2009

101 Eyhorn et.al. 2007: 25

see box 11), producers, women and men, receive the same guaranteed minimum price<sup>102</sup>, independent of their bargaining and negotiation power or knowledge regarding the quality of their cotton. This is particularly important in times of extremely low prices. Yet, organic cotton yields are usually lower than yields from conventional cotton. This is also related to the required resting periods and rotation of the land.<sup>103</sup> On the other hand, with organic cotton, producers do not need credit for fertiliser and pesticides.<sup>104</sup> The calculated gross profit margin for organic cotton, as opposed to conventional, is 27 per cent in Kyrgyzstan (where the revenue was 20 per cent higher for organic farmers in 2008) and 37 per cent in Burkina Faso.<sup>105</sup>

Organic cotton also eliminates the vulnerability of farmers, especially women, towards price development in the market of inputs. Price developments and access to credit affect the affordability of inputs (fertilisers and pesticides) needed for conventional cotton. In some countries, governments have introduced subsidies to ease this burden and increase yields. When subsidies come to an end or do not cover all farmers, the profits decrease drastically or diminish, due to higher input costs. Women also often face more difficulties accessing government subsidy schemes as a study on Malawi's coupon-based fertiliser subsidy scheme demonstrates.<sup>106</sup> Additionally, women might encounter difficulties in ultimately 'controlling' the fertiliser, as men apply it to their fields.<sup>107</sup> Global comparisons show that male-headed households in agriculture use more fertiliser than female-headed households.<sup>108</sup> A contributing factor to this lower use by women is that, owing to cultural factors, restricted mobility and time conflicts related to care responsibilities, they seldom form part of cooperatives or structures. These cooperatives often provide credit, access to equipment and training. Lack of access to credit, critical in conventional cotton, is a major obstacle for women (see chapter 2) which is largely removed in organic cotton.

## Box 11

### FAIRTRADE: FACTS AND REQUIREMENTS FOR GENDER AND ENVIRONMENT

Fairtrade Labelling Organisations International (FLO) coordinates the process of Fairtrade labelling internationally as a non-profit and multi-stakeholder organisation. It sets standards and requirements related to environmental, economic and social (gender, working conditions) aspects of production. FLO provides strategic direction of Fairtrade and supports the producers in obtaining certification and accessing markets. The ultimate goal is improved terms of trade and fair prices for farmers and workers in developing countries. Standards cover social and environmental issues (not organic), including gender equality. Requirements cover, to differing extents, production, processing and trade.

While the measures to improve gender equality might not be all-encompassing, the increased emphasis over the past years is to be viewed as positive. Organic standards fall short of any requirements concerning gender and therefore (a combination with) Fairtrade presents an important opportunity to increase gender equality in greening efforts.

Organic cotton eliminates health risks related to the use of hazardous agrochemicals for both men and women.<sup>109</sup> Cotton farmers in Burkina Faso and Kyrgyzstan – women in particular – consequently identify improvements in health as the second most important benefit of organic cotton in the Helvetas impact studies (Pineau 2009 and Bachmann 2010). The positive health effects also extend to the farmers' livestock. In organic production systems food crops are also organic and can be grown within the fields without containing any traces or residues of pesticides.

Organic compost and manure are used as natural fertiliser instead of chemical products. Organic cotton production seeks to (re)establish (local) agroecosystems through sustainable farming. Included are diversification of crops, crop rotation and intercropping, resting periods for farmland, and integrated organic pest management. The quality of soil has improved after the conversion period in both Burkina Faso and Kyrgyzstan. In focus group discussions, Kyrgyz producers identified positive effects in terms of pest occurrence and its management through rota-

102 The price is set as a minimum per region for two different quality categories of seed cotton (before ginning), calculating the costs for sustainable production. Organic minimum prices are set 20 per cent higher than the Fairtrade price. Market prices apply if above the minimum price. The buyers must pay an additional premium of \$0.5/kg, used by the producer's organisation (usually small family farms organised in co-operatives) for social and economic investments (e.g. education and health services, wells, equipment and loans for members and can also be used to ease the conversion period to organic), see FLO website. The combination of organic and Fairtrade certification is on the rise (in 2010 18 per cent of the Fairtrade cotton was organic, see Fairtrade International 2011), as it additionally meets consumers requirements concerning social and labour standards.

103 Organic cotton yields in comparison to conventional depend mainly on the quantity of compost and manure used, as well as on the quality of the soil. Quantities per hectare of conventional and organic cotton differ by 30–10 per cent. In Kyrgyzstan, for example, organic cotton yields in 2008 have only been 10 per cent lower than conventional cotton yields. See Bachmann 2010.

104 In some cases labour costs for contracted workers apply and have to be deducted from profits.

105 Pineau 2009: 6; Bachmann 2010: 60

106 See FAO 2011.

107 See Quisumbing 2009: 4 on a case in Nigeria.

108 See FAO 2011: 35.

109 The fact that men usually apply the agrochemicals does not eliminate risks for the household. Empty pesticide and fertiliser containers are often used to fetch water by women, traditionally responsible for care of the children and the elderly in the family in Africa, fetching water and ensuring 60–80 per cent of the food production (data not specific for West Africa but valid for all Africa, Robinson 2011). Pesticides, costly and valuable goods for farmers, are also often kept in the house within reach of the children.

tion of crops and the use of manure.<sup>110</sup> More men than women mention increase in soil fertility in Burkina Faso<sup>111</sup>.

Although not specifically mentioned by the farmers as a benefit, the impact assessment in Burkina Faso revealed an improvement in the quantity, quality and variety of the diet of families growing organic cotton. Food security thus improves through diversification of crops as part of organic soil and pest management. Beans, grains, rice and nuts are planted in between the cotton plants (intercropping). The improvement of the family diet is also strongly attributed to the higher income generated from organic cotton. The Helvetas impact study has also revealed that organic cotton producers plant more than twice as many diversified food crops as conventional cotton farmers. Ground nuts, planted by women in greater quantities in Burkina Faso, as well as maize, sesame and rice, contribute to crop diversification<sup>112</sup>. The surpluses are sold at local markets. This creates additional income for the families and contributes to an increased variety of foods available on the local markets. Thus, positive effects on the nutrition of the wider local population can be achieved.

### Harvesting

Organic cotton is also a safer and healthier option at harvest, constituting another node in the value chain at production level. Organic cotton does not contain any residues of pesticides, when the cotton is picked from the plants. Cotton in West Africa is still harvested manually and often involves more women than men. Large farm managers prefer female workers when contracting labour, based on their quicker picking skills, careful treatment of the plants and because they steal less.<sup>113</sup>

Harvesting organic cotton is often described as more labour-intensive than harvesting conventional cotton, as it has to be sorted and cleaned more thoroughly. The overall lower yields in organic cotton might, however, counter this additional workload, which affects women in particular.<sup>114</sup> Greening potential after harvest in cotton is exclusively related to environmentally friendly means of transportation and fuel consumption. The location of the ginneries might also determine the carbon footprint of the cotton. In West

Africa however, ginneries are often located within the production zones, therefore close to the producers.

Overall, organic cotton is perceived as a viable alternative for cotton growers. 91 per cent of the organic farmers who had converted in Kyrgyzstan consulted as part of the impact assessment stated that they would do so again. While for some decreasing prices could be a motivation to convert back, 27 per cent said they would not under any circumstances convert back to conventional cotton growing.<sup>115</sup>

## Case 10

### SIDE-VALUE CHAINS OF ORGANIC COTTON

Specific crops and trees grow in and between the cotton fields, such as the Shea tree and its nuts. These, and the products developed from them, have traditionally been a female domain in West Africa. With the conversion to organic cotton, women can sell the processed products of the nuts, Shea butter and soap, as organic, thus fetching a higher price. Women collect the nuts in the field, sort, separate and dry them in the sun. The further processing is time and labour intensive. Shea butter is sometimes used in chocolate as a cocoa butter replacement. Primarily, Shea butter (also known as Karité) is a healing and moisturising paste, rich in Vitamin A and E and is widely used in the cosmetics industry. If traded and exported as an organic product, women can make substantial revenues from Karité. Women's associations, cooperatives or unions have been built around the production of Shea butter in West Africa. These have improved and augmented production and enabled joint acquisition of the required equipment.

In the process of manufacturing, a number of greening opportunities emerge. These relate to the use of energy-efficient machines, energy efficient stoves and water management. The success and benefits for women nonetheless depend on the development of a value chain with established trading relations and market opportunities. Direct contact with buyers would enable the women to sell at higher prices, increasing their incomes. Side-value chains of organic cotton are not limited to Shea butter, as mango can also be processed and dried, while groundnuts can be sold for or already manufactured into organic peanut butter and other products. Well developed (pro-poor) side value-chains to organic cotton offer valuable revenue possibilities for communities and particularly for women, contributing to poverty alleviation and the establishment of micro- and small enterprises.

<sup>110</sup> Bachmann 2010: 21. Studies in Africa have also shown that organic crops are more resistant to extreme weather conditions often caused by climate change, such as drought and floods.

<sup>111</sup> Pineau 2009: 36

<sup>112</sup> Pineau 2009: 5

<sup>113</sup> Hammer (n.d.): 2. Child labour, prevalent as unpaid family work in West Africa, is not acceptable in the green economy and Fairtrade and undermines the principles of decent work. Low income of women through few economic opportunities might impede its eradication. See also ILO's Global Action Plan on the Elimination of Child Labour.

<sup>114</sup> Research is needed to establish the exact ratio of additional work at harvest of organic cotton and lower yields in comparison to the workload at harvest in conventional cotton.

<sup>115</sup> See Bachmann 2010: 26. Unfortunately, sex disaggregated data for a thorough gendered analysis on the motivations of men and women are not available.

## Box 12

### ORGANIC COTTON MARKET DEVELOPMENT & TOP TEN BRANDS USING ORGANIC COTTON (2008–2010)

The market for organic cotton and sustainable fibres is growing, as global organic retail market figures reveal.<sup>116</sup>

| Year | Value           | Rise |
|------|-----------------|------|
| 2010 | \$ 5.61 billion | 20%  |
| 2009 | \$ 4.3 billion  | 20%  |
| 2008 | \$ 3.2 billion  | 63%  |
| 2007 | \$ 1.9 billion  |      |

Top brands and retailers plan to use either the same volumes of organic cotton or increase organic cotton in the coming years. Textile Exchange projects the market to grow by a further 20 per cent in both 2011 and 2012 (conservative rate) and estimates a market value of USD 7.4 billion (or even up to USD 9.3 billion) in 2012. New organic textile programmes by retailers and increased volumes of up to 125 per cent in 2010 have considerably altered the top ten of the past three years:

|    | 2008               | 2009                 | 2010                     |
|----|--------------------|----------------------|--------------------------|
| 1  | Walmart/Sam's Club | C&A                  | H&M                      |
| 2  | C&A                | Nike Inc.            | C&A                      |
| 3  | Nike Inc.          | Walmart/Sam's Club   | Nike Inc.                |
| 4  | H&M                | Williams-Somona Inc. | Inditex (Zara)           |
| 5  | Zara               | H&M                  | adidas                   |
| 6  | Anvil Knitwear     | Anvil Knitwear       | Greensource              |
| 7  | Coop Switzerland   | Coop Switzerland     | Anvil Knitwear           |
| 8  | Pottery Barn       | Greensource          | Target                   |
| 9  | Greensource        | Levi Strauss & Co    | Disney Consumer Products |
| 10 | hess natur         | Target               | Otto Group               |

SOURCE: GLOBAL MARKET REPORT 2010, TEXTILE EXCHANGE 2011A. WALMART: NO DATA SUBMITTED FOR 2010.

### Organic cotton and markets

The key leveraging factor for organic cotton production is demand. In 2010, 275,300 farmers were growing organic cotton in 23 countries. Organic cotton production increased by 20 per cent in 2008–2009 and 15 per cent in 2009–2010. However, organic cotton still constituted only approximately 1.1 per cent

of the entire world production of cotton in 2011.<sup>117</sup> Traditionally, ecological clothing retailers and smaller companies have bought organic cotton for their retail products. However, in the past five years, big brands and retail companies have started to introduce organic cotton product lines, therewith increasing the overall demand for organic cotton (see box 12). Consumption patterns of organic produce are inherently female, as research from the OECD and Sweden has shown (see more in chapter 2). These economic benefits can attract more farmers, women and men, to convert to or enter organic cotton production. Women drive green production, inter alia, through their demand as consumers.

### Linking markets with producers

Direct contact between producers and cotton buyers is vital, as it can remove 'a significant barrier to sustainable growth'.<sup>118</sup> A considerable challenge for green growth still lies in the current (conventional) trading system, which, across commodities, largely marginalises small producers.<sup>119</sup> Helvetas, as part of their approach in supporting organic cotton production, links producers to the market. Market relations are established with cotton buyers in Switzerland and Europe from the onset, so that production actually follows demand. In addition, information to consumers is provided to foster sustainable consumption patterns in the northern markets.

### Enduring challenges for women's participation

Organic farming reduces the need for inputs (fertiliser, pesticides, credit) and eliminates at least one important barrier to participation in agriculture and agro-processing for women. Other challenges faced by small-scale cotton or other commodity farmers however still apply to many women – even in the green economy.

As discussed in chapter 2, access to land in terms of ownership, but also access to fertile as opposed to marginal and distant lands, constitute barriers to entering the green economy for women. This is underscored by the results of the Helvetas impact study in Burkina Faso: fields owned by women were located on average 1.8 km further away from their home than those of men.

Land-related gender inequality patterns are thus equally relevant in organic cotton. They might even be greater, as tons of compost need to be transported

116 Global Market Report on sustainable textiles, Textile Exchange, various years. Textile Exchange (formerly Organic Exchange) is an internationally operating non-profit organisation, established in 2003.

117 Textile Exchange 2011b: 13. Although it is desirable that the share of organic cotton rise considerably, there is a large debate around the actual viability of organic food and commodity production in relation to land, water and food necessary to feed the growing world population. Unfortunately, the scope of this study does not allow further examination of this issue.

118 Textile Exchange 2011a: 4

119 See Bassett 2010: 46ff for more.



to the fields. The way back from the fields after harvest is consequently also longer for women than for men. Women also face more difficulties in accessing relevant auxiliaries in agriculture than men. Organic cotton does not change this fact in general. Fields owned by men are often treated as a priority when using ox ploughs or other auxiliary, mechanical means. This can in turn determine yields.<sup>120</sup> When given the same opportunities (equal access to inputs, including equipment), women and men reach the same level of productivity (yields), as results from studies of cocoa in Ghana also show.<sup>121</sup> In sum, the lack of access to land and relevant machinery and technology is therefore not an inherently green issue, but still relevant to green PSD programmes that strive for gender equality.

Farmers in Burkina Faso and Kyrgyzstan (men and women) highlighted the production and the transport of organic compost as the main challenges for organic cotton production: application of high quantities of organic compost is required for high yields. Compost needs to be prepared in a labour-intensive process, which can be followed close to home, but its transport to the fields usually poses a challenge for women, due to the availability of transport means, physical strength and the distance of the fields.<sup>122</sup> This has, for example, been observed in Burkina Faso, where women applied on average 16 carts of organic compost to their field and men 25.<sup>123</sup> Yet, considering that they were holding fewer animals (many times due to lack of credit or income in general) and that their fields were on average 1.8 km further away, the difference is not at all surprising. The above-mentioned lower perception of women in improvement of soil fertility might actually be explained by this pattern of gender inequality.

A value chain mapping visualises opportunities for (male and female) participation, greening and blockages in the production node for conventional and organic cotton, to be found in Annex on page 62.<sup>124</sup>

120 A study in central Benin on rice production has shown that women's groups had to wait their turn until the motor cultivators (equipment owned by groups for ploughing etc.) had done their work in the men's fields. The consequences were delays in planting in the women's fields, resulting in yield losses (see Kinkingninhou-Medagbé 2010).

121 FAO 2011: 41

122 Organic cotton production is more labour-intensive owing to the organic compost required and the increased weeding resulting from the elimination of chemicals. Weeding is traditionally regarded as women's work, therefore increasing their workload. However, as estimated in Burkina Faso, 23 per cent fewer hours of work are required in the fields for organic cotton production. In conventional cotton production, fields have to be sprayed up to 6 times per harvest. See Bachmann 2010.

123 Pineau 2009: 31. Weight: 8 carts = 1 ton.

124 Based on principles of Mayoux/Mackie 2008. Mapping value chains can help to understand existing gender dimensions and interrelations. It can identify entry-points and define (economic) opportunities as well as blockages, with implications for strategy decisions.

### 3.1.3 Ginning: greening and women's participation

At the ginning stage, the seeds are separated from the cotton lint by ginning machines at ginneries. Afterwards, the 'clean' cotton lint is pressed into bales. Organic cotton and seeds need to be separated from conventional cotton at the ginnery. The organic product could otherwise be contaminated. Ginning is a costly stage of the cotton value chain. It is energy-intensive and requires efficient and appropriate ginning machines.

The use of energy-efficient machines as well as the type of energy (diesel generator vs. green(er) energy) used at the gin are primary greening entry-points at the ginning node. Gender patterns in employment at the ginning node vary across different countries and continents. In West Africa, the seasonal labourers at ginneries are predominantly men. In India, on the contrary, both women and men work in ginneries. Employment at ginneries is seasonal. In West Africa, ginning of cotton lasts from five to six months, depending on the production quantity. Women's participation is mainly determined by care responsibilities, lack of (public) child care and knowledge. Although the definition of green growth used in this study is inclusive, it is important to stress that the factors outlined will not be addressed automatically by a greening of the node.

Cotton seeds account for around 60 per cent of the weight of organic cotton. Separated in the process, they can be used and traded as a by-product, for example as protein rich (and organic, residue free) animal feed. They can also be pressed and thereby turned into oil.

### Occupational hazards and working conditions

In the ginning process, cotton fibres are released into the air. In conventional cotton, these fibres contain agrochemical residues, which worsen the health hazard in ginning. Most ginning machines, especially the older models, produce noise levels well above the daily rate of recommended decibels, exposing men and women working at the ginnery to unhealthy noise pollution. A study conducted in India has shown that most workers do not use any hearing protection and 19 out of 20 ginning workers were suffering from hearing loss.<sup>125</sup> Appropriate and compulsory noise protection is important to avoid such damage and to create a healthy and decent work environment for both men and women. Regular maintenance of the gins can reduce noise and cotton dust emission. Health issues emerging at the ginning node can be addressed mainly through new technology and protection measures.

125 See Dube KJ et. al. 2011. The study was conducted with a questionnaire survey on self-reported health issues in 10 ginneries in the Jalgaon district in the Maharashtra state in India. No sex-disaggregated data is available.



### Transport of cotton to ginneries

In West Africa, cotton is transported from the cooperatives' silos to the ginneries by trucks of the company to which the cotton is sold. However, as transport is usually a male domain, transportation of cotton to the ginneries can in other contexts pose a challenge for women, especially if they depend on men's help for loading onto trucks. This possible dependence on (physical) help from men might not pose a problem in many cases; it can however still become an issue of power and control, ultimately affecting the women. A longitudinal study by Bassett in Ivory Coast has shown that women had to give up their economic activity due to the fact that men refused to help loading the cotton onto trucks or containers.<sup>126</sup> This power relationship, a consequence in part of male fear that women might work less in the male fields as an unpaid labour force, in the families' fields, where food crops are grown and at home, is a reminder that women's economic activity does not automatically lead to independence. Quite the contrary, it might in the short-term contribute to conflict and even cause or increase domestic violence as outlined in chapter 2. Consequently, such issues should be addressed in gender-sensitive and transformative programming of PSD approaches. These should not target women in isolation but create the buy-in of men and the community to changes which might affect households, cultural patterns and power-relations. Male fear and opposition can be prevented and eliminated by dialogue and inclusion, not by polarisation and what is often perceived as manipulation originating in 'western' ideas.

### Trading

The cotton sector in West Africa is centralised; cotton is only sold directly to cotton societies.<sup>127</sup> This commercial monopoly eliminates traders between the producers and the gins. Where this is not the case, bargaining skills and knowledge are vital to obtain a fair price for the product. Women are often disadvantaged due to a lack of negotiation and bargaining skills. Additionally, the price obtained depends on the grading of the quality of the cotton. Women are vulnerable to deception, if they are not able to establish the appropriate grade. As a consequence, women often leave the trading to their husbands or male members of the family since they are open to fraud.<sup>128</sup> Cooperative structures or associations offer one solution to address this problem, since they can reach economies of scale in trading and minimum guaranteed prices – as is the case in organic and Fairtrade cotton – and secure women a fair price. To this end, cooperatives hold particular benefits for women.

Trading as an occupation, involving movement between localities and direct producer or cooperative contacts, is typically a male domain in commodities. An interview conducted for this study revealed, for example, that trading in cocoa in Ecuador is 95 per cent undertaken by men.<sup>129</sup> A contributing factor to the low representation of women in trading might lie in their limited mobility due to their caring responsibilities. Commercial trading additionally requires specific knowledge of the product, bargaining and negotiation. Women's frequently lower qualification in these skills, often related to reduced access to training opportunities, can also contribute to their low representation in this occupation.

In conclusion, greening in cotton allows women to adopt an attractive economic activity, a green job, with a number of positive direct and indirect (side) effects. The conversion to organic cotton eliminates environmentally damaging inputs and barriers to women at the same time, at least in West Africa. Their lack of representation and voice at cooperative level and in management positions is linked to the lack of equal opportunities and vice versa. Low representation of women is however not only rooted in male dominance or prevalent social norms. Conflicting time patterns with regard to meetings at the cooperative and their care responsibilities contribute significantly to women not participating.

<sup>127</sup> The cotton society SOFITEX, formerly state owned, still dominates most of the commercial and industrial activities in Burkina Faso, buying seed cotton, ginning and trading it. It interfaces with the local producers cooperatives. See UNCTAD INFO COMM.

<sup>128</sup> See Bassett 2002.

<sup>129</sup> The Foundation 'Conservación y Desarrollo' is involved in mostly organic cocoa growing with indigenous communities in Ecuador, producing specialty chocolates.

## Box 13

### BARRIERS, OPPORTUNITIES AND APPROACHES FOR WOMEN IN ORGANIC COTTON PRODUCTION

#### (Potential) Barriers

- Social norms and power relations (cash crop as a male domain)
- Lack of knowledge of organic farming procedures
- Lack of membership in cooperatives
- Certification fee for organic and fair trade standards
- Lack of access to equipment
- Increased workload (out of fields, for organic compost development)
- Transport of organic compost to field and of cotton to ginnery
- Access to land and distance of fields

#### Opportunities

- Organic cotton as primary entry point to a cash crop
- Income without necessity for credit (for inputs)
- Minimum price guaranteed
- Health benefits
- Knowledge and skills development
- Organic and Fairtrade certifications with female membership/participation requirements in cooperatives and relevant structures
- No external inputs required
- Food benefits (diversity, soil fertility, organic produce, surplus earnings)
- Organic side-products (e.g. Shea butter)

#### (Potential) PSD Approaches

- Support organic cotton (or other commodities) programmes and certification processes (capacity development for organic farming, value chain development and upgrading, gender mainstreaming)
- Support female entrepreneurship and producers groups for value adding and upgrading of the chain (incl. side-products, such as organic Shea butter)
- Establish direct contact with markets, linkages to buyers and demand (meso level) and adapt product(s) to demand and markets (micro level)
- Support women's participation in cooperatives and management structures (investigate barriers, implement solutions, address power relations and raise awareness for equal participation and sharing of care responsibilities)
- Facilitate access to credit, collective savings and/or auxiliaries and technology for cooperatives and/or women's groups

### 3.1.4 Textile segment: greening and women's participation

The textile segment of the cotton value chain offers a number of opportunities for greening and increased gender equality. Working conditions in general (decent work) as well as technology and (chemical) substances use in the process are the main entry-points. The cotton societies in West Africa, who have a monopoly, transport the cotton, whether conventionally or organically grown, directly from ginneries to the ports of Abidjan or Dakar. From there, it is primarily shipped to South-East Asia (66 per cent<sup>130</sup>), where further value is added in the textile segment of the cotton value chain. The carbon footprint of the gar-

ment as the end product is naturally augmented by transportation, even if by ship (lower carbon emissions than airfreight).

#### Handicraft cotton textiles

Local MSMEs for handicraft textiles offer an alternative. These are often run by women and specialise in handicraft cotton textiles for the national/regional market or international niche markets. Spinning, weaving and knitting and dyeing (with natural dyes from plants) as manufacturing processes are usually done manually and locally. This sector offers important opportunities for green PSD with a strong gender and community impact, increasing women's economic activities and female entrepreneurship and advancing them in the value chain. Organic cotton, natural

130 See UNCTAD INFO COMM.

fibres and naturally dyed fabrics as well as recycled materials or cut-offs can be used in fashion production or for accessories. A linkage to buyers, fashion designers and the apparel industry is essential, as the example of case 11 'No charity, just work' on the next page shows.

### Textile dyeing

Greening potential at the industrial textile segment is related to technology, the type of machines used and their energy-efficiency. Furthermore, dyeing involves mainly synthetic dyes and is chemical and highly water intensive. Wastewater with dye effluents poses a challenge since colours contain sulphates and chlorides. One kilogramme of processed textile product creates between 100–150l of wastewater.<sup>131</sup> New dyeing technologies, which reduce or even eliminate the use of water from the process and lower greenhouse gas emissions, are viable greening solutions. They also impact women directly as workers and indirectly through less contaminated water. According to World Bank estimates, 17–20 per cent of industrial wastewater pollution worldwide is caused by textile dyeing and treatment. This again indirectly affects women in particular, as they traditionally use and collect water for the household.<sup>132</sup> Wastewater taxes and/or charges and effective controls from governments could substantially increase the adoption of green dyeing processes across the industry.

Greening potential in the fabrication of apparel is also related to increased and innovative (re)use of by-products. Nonetheless, organic cotton production cannot guarantee organic apparel. The Global Organic Textile Standard (GOTS), regulating chemical inputs and wastewater management *inter alia* is an important step towards greening the textile node. Fair working conditions as part of the GOTS impact positively on all workers, but given the high percentage of female workers in the textile manufacturing industry, on women in particular.

## Box 14

### THE GOTS

The greening of the textile sector can be supported when a company subscribes to (and when consumers pay attention to) the GOTS. This standard, established in 2006, covers all natural fibres. It regulates chemical inputs based on environmental and toxicological criteria, wastewater treatment plants for wet-processing and social criteria in textile processing. A GOTS-labelled textile contains a minimum of 70 per cent of certified organic (or in conversion) fibres.<sup>133</sup>

### Working conditions in the textile industry

Gender patterns at the textile node relate strongly to precarious working conditions in the textile manufacturing industry. Owing to the high percentage of female workers, focus is needed on how women are affected by working conditions falling short of decent work standards. The exploitative production patterns are largely invisible to consumers. Consumers, however, with relevant information, e.g. through consumer information and awareness-campaigns, would have the power to push industries to adapt cleaner production methods and decent work standards.<sup>134</sup> The gendered division of labour further is a factor here, as women are disproportionately located at low management and skills levels and rarely in decision-making positions. The industry itself should set out to create conditions and opportunities for women to advance in the value chain, e.g. breaking with existing patterns of a majority of male supervisors for a majority of female workers.

131 Makower 2012

132 The water might have to be fetched further away, due to contamination. Else, contamination of water and related health effects concern the entire household, not only women.

133 See: GOTS, [www.global-standard.org](http://www.global-standard.org).

134 See Betancourt 2011: 15. A challenge remains in the strong lobbying power and interest of industries and companies on the one hand that fail to provide information on actual production processes, places and conditions and challenges on the other hand arising through subcontractors not abiding by certain standards.

## Case 11

### 'NO CHARITY, JUST WORK' – LINKING POOR AFRICAN COMMUNITIES WITH THE FASHION INDUSTRY

The fashion industry employs around 60 million people globally – the majority of whom are women and unskilled workers. Increased examination of the industry by consumers around labour and environmental impacts in fashion production has created a market shift.<sup>135</sup> The Poor Communities and Trade Programme (PCTP) of the International Trade Centre (ITC) used the evolving new trade opportunities for African micro-manufacturers within its project the Ethical Fashion Initiative. Poor and marginalised rural and urban communities in Kenya and Uganda with no prior access to export markets and global supply chains were linked to international fashion companies. The majority of these (formal and informal) micro-producers are women. The approach contributes to poverty alleviation, gender equality and at the same time promotes environmentally friendly production processes, using mostly recycled and/or organic locally sourced materials.<sup>136</sup>

The aim of the programme is not to establish niche markets for 'ethnic fashion' from Africa, but 'to convert mainstream fashion into a more ethical endeavour'.<sup>137</sup> The programme, working with a social enterprise in Africa as intermediary, has attracted several internationally renowned fashion designers to the communities, including Vivienne Westwood. ITC provides technical assistance and links (potential) buyers, thus facilitating demand and supply.

Over 7,000 women have gained employment, receiving fair pay, equal to around double the minimum wage in Kenya and have improved their livelihoods substantially. In an impact assessment, conducted in 2010,<sup>138</sup> 88 per cent of the respondents mention 'their ability to make independent financial decisions as the most important change in life', 94 per cent 'are more confident with themselves' and the whole of the Maasai community interviewed referred to increased respect from their male counterparts, especially husbands for their ability to earn a living, take care of their families and restock their animals.

## 3.2 Greening and women's participation in the tourism value chain in Brazil

Tourism is an important and growing economic sector for a number of developing countries. It contributes significantly to their national GDPs. One-third of developing countries currently obtain their foreign exchange mainly from tourism.<sup>139</sup> Even though some countries might represent relatively small destination countries, the significance of tourism for the export basket can be enormous.<sup>140</sup> Even though growth has currently slowed due to the economic downturn, an average four per cent growth is still expected in 2012, according to the World Travel and Tourism Council (WTTC). At the same time, the tourism sector is highly labour-intensive and represents around eight per cent of global employment. With the growth projected, the WTTC also estimates 69 million additional jobs in tourism by 2021. Almost 80 per cent of these will be in Asia, Latin America, the Middle East and Africa<sup>141</sup>. The potential job creation in tourism is thus enormous, allowing for estimates that one job in the core tourism industry indirectly creates about 1.5 additional jobs.<sup>142</sup>

Despite its potential, tourism has a number of *leakages* – i.e. outflows of external financial resources. Amongst those are foreign ownership, international sourcing and the oft-held assumption that unskilled local labour cannot meet the (quality) requirements of international hotel standards, leading to international hire.<sup>143</sup> Furthermore, the leakage between paid (by the consumer) and received price for (local) services, although difficult to measure, is estimated at up to 75 per cent. This results in low benefits and income at local level.<sup>144</sup> The active and committed role of the tourism industry in local (economic) development is needed to minimise these leakages. It means favouring local businesses and services and local hire. If necessary, this includes investment in skills and quality standards development at local level, considering the impact on the environment and gender equality. Incentives for such involvement are lower costs for the industry in the longer term, recognition of applied Corporate Social Responsibility, demand by consumers, or even the development of a new market segment in tourism.

135 ITC 2011a: 2

136 ITC 2011a: 6

137 ITC 2011: 15

138 Following results and quotes from ITC 2011a: 8.

139 UNEP/UNWTO 2011: 418. Tourism's share of the global GDP is around 5 per cent (UNEP/UNWTO 2011), depending on the year and growth.

140 Mitchell/Ashley 2010: 7. In Ethiopia for example, tourism represented 32.6 per cent of exports in 2009, in Nepal 28.5 per cent, Cambodia 22.1 per cent (World Bank data for 2009). In LDCs it is the leading services export, representing 33 per cent and 65 per cent for island LDCs, ILO 2011e: 1.

141 WTTC 2011: 4

142 See UNEP/UNWTO 2011.

143 There are a number of relevant and important aspects of tourism and its impact on the local population that relate to traditional social and societal structures and acculturation, which cannot however be discussed here.

144 Diaz 2001: 8

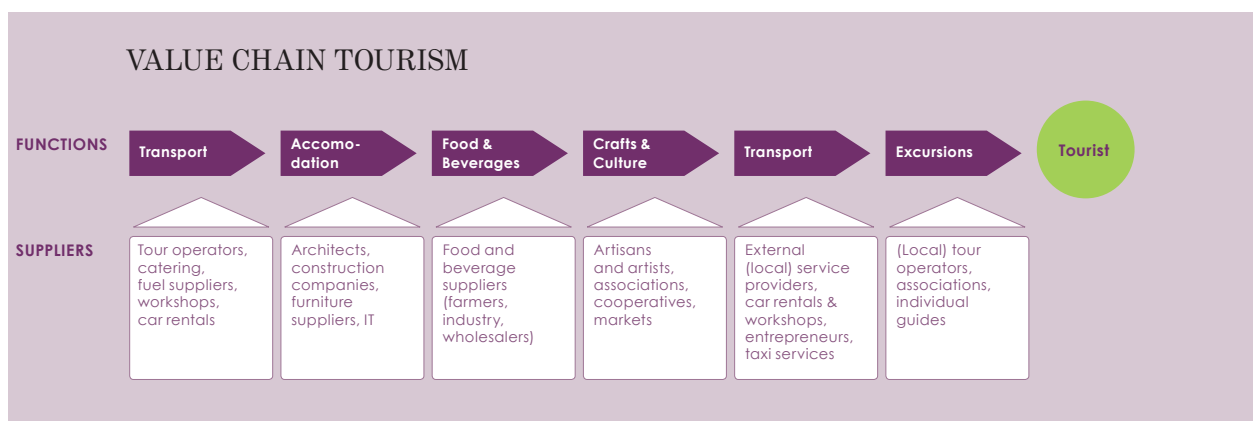


Figure 5: Tourism value chain – functions and suppliers

SOURCE: AUTHORS

### Tourism and sustainability

The tourism industry<sup>145</sup> is highly dependent on the environment and on the climate of the destinations. Therefore, tourism-related businesses have a key role in protecting the (local) environment and local biospheres, key areas being energy and GHG emissions, water management, waste management, loss of biological diversity and the management of cultural heritage.<sup>146</sup> Sustainable tourism 'takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities'.<sup>147</sup> The responsibility of tourism actors for the environment is not only increasingly recognised by the industry itself, but also more and more demanded by the customers – the tourists. Nonetheless, the tourism industry still does not always practise energy, waste- and wastewater management at the destinations.

The projected tourism growth, especially as this is expected to be faster in less developed countries than in developed countries, poses a threat on the one hand but at the same time presents opportunities. Application of green measures, local green fees and taxes and the enforcement of local policies directed towards sustainable tourism and protecting the local economy and the inclusion of the poor and women can have great impacts. It is therefore of paramount importance to combine the projected tourism growth with the green agenda, promoting inclusive, gender-sensitive and sustainable tourism. Governments, the tourism industry, international development partners and tourists themselves must all contribute to realise inclusive green growth in tourism.

### 3.2.1 The tourism value chain

Tourism is a complex system with a number of main functional nodes and sub-sectors. It is not a classical value chain. Figure 5 shows a generalised and simplified tourism value chain, with main and direct functional nodes in tourism and possible suppliers. The end product is the overall tourism experience of the tourist, who draws on numerous supplies and services in the process. Each node or component adds further value to the experience. Several suppliers are involved, completing and complementing the direct services in the tourism sector, interacting with the system. Different tourism market segments, directed at different target groups, e.g. mass tourism, ecotourism, adventure tourism, high-end tourism and others, by themselves determine the further details of each value chain, its suppliers and service providers for a specific region or area.<sup>148</sup>

### Women in tourism

Sex-disaggregated data, offering exact information on women in tourism globally, is still in short supply. The Global Report on Women in Tourism 2010 by the UNWTO offers some insight into gender patterns in the sector, which sometimes differ greatly between regions. Women are often considered as more open and customer-friendly by operators and managers and are at large put into positions of customer contact. In fact, tourism has almost twice as many women as employers than other sectors<sup>149</sup>. Nonetheless, the same patterns as in other sectors are repeated in tourism: more women work in lower ranks than men. The gender pay gap is also prevalent in tourism, where women earn around 10–15 per cent less than their male counterparts.<sup>150</sup> Furthermore, data show that women in tourism contributing to a much greater extent to family businesses (in hotels and restaurants) than in

<sup>145</sup> The industry includes numerous different direct actors and suppliers. These include international and national tourism companies, hotel chains and resort operators, individual hotel and accommodation owners, tour operators, travel agencies, airlines, transport enterprises and car rentals, local tour operators and guides, food and beverage suppliers, etc.

<sup>146</sup> UNEP/UNWTO 2011: 421f

<sup>147</sup> UNWTO

<sup>148</sup> See SNV 2009: 10.

<sup>149</sup> UNWTO 2011: ii

<sup>150</sup> UNWTO 2011: ii



other sectors (17 per cent higher in Latin America, 20 per cent in Africa). If unpaid, this economic activity is likely to undermine women's empowerment.<sup>151</sup>

## Box 15

### PRO-POOR TOURISM AND GENDER

At the centre of a pro-poor orientation in tourism, which looks at strengthening the linkages between tourism and the local economy, should be considerations and analyses around the actual (direct and indirect) net-benefits flowing to the poor in the destination.<sup>152</sup> When assessing tourism in terms of its pro-poor and gender orientation, crucial questions relate to 'who' in fact benefits and 'how': do local, regional or international women or men benefit (directly or indirectly)? Within which labour segment and at which occupational level do benefits occur? The analysis must include actual levels of benefit as well as different areas (income, livelihood, security, formality, health etc.) and integrate possible social and environmental costs and damage.

Tourism offers possibilities for greening and women's participation within its nodes and numerous supply chains. In the following, the focus is set on accommodation, food and beverage and crafts. Transport is only briefly analysed, as although an important and inherent tourism component, relevant to greening, it is much less so to women's participation. Although not specifically covered, excursions as another node also offer opportunities for green local tour operators and entrepreneurs, both female and male.

A specific case of inclusive and pro-poor oriented tourism from Bahia in Brazil provides detailed insight into possible process design and implementation in the tourism value chain to yield positive results through greening and gender.

## Transport

Transport is the most energy-intensive component in tourism.<sup>153</sup> It accounts for 4% of the 5% of global carbon emissions attributed to tourism<sup>154</sup> and offers potential for greening. Emissions through overseas travel can however only be further reduced through optimised utilisation of capacities, incentivised by carbon emission taxes and trading, through different routing, fuel alternatives and new technology. Carbon emission taxes and trading are already being introduced as mechanisms.<sup>155</sup> The gender dimension in transport is mainly related to indirect effects from environmental impacts and to general participation in employment. This underscores that gender dimensions vary within a value chain. Considering transport at the destination, the principal greening potential relates to what type of technology and vehicles are being used (and who drives them). In developing countries, public transport is often considered unsafe and inappropriate for mainstream tourists, leading to an increase of use of (usually non-green) private vehicles as transport means. Nonetheless, green and functioning public transport, such as the 'Linha Verde' in the city of Curitiba in Brazil can change these patterns, particularly in emerging countries.<sup>156</sup> Besides benefitting from green public transport systems, women can be involved in both operations and management in transport in tourism. However, their jobs might not differ in terms of accessibility from those in the brown economy.<sup>157</sup>

153 UNEP/UNWTO 2011: 421

154 UNWTO 2011: 1

155 Carbon emission taxes (such as the European Union's emission trading scheme – ETS), certificates and trade and (obligatory or voluntary) compensations for the CO<sub>2</sub> emissions paid for by customers are all means to increasing environmental efforts and awareness in general. Nonetheless, overseas tourism, including jobs involving overseas travel, is not environmentally friendly per se. Getting to the destination is GHG-emission intensive.

156 The Institute for Transportation and Development Policy (ITDP) yearly assigns a sustainable transport award. In 2010 Curitiba has received honourable mention based on the recognition of the creation of a new bus rapid transit system reducing carbon emissions and creating an optimal environment for pedestrians and cyclists. See ITDP for more.

157 This also relates to a question of definition of green jobs, as outlined in chapter 2.

151 See UNWTO/UN Women 2011.

152 Mitchell/Ashley 2009: 1

### 3.2.2 Accommodation: greening and women's participation

Accommodation in tourism is labour-intensive and engages a high number of semi-skilled and unskilled workers. Studies have shown that only a relatively small proportion of the accommodation turnover, namely around ten per cent, in fact reaches the poor via wages.<sup>158</sup> Environmental considerations are a factor as early as the selection of the location (protecting biospheres, species and local communities), planning design and construction of a hotel, resort or lodge. To prevent these from being, the (local) government in the destinations should apply and enforce policies, taxes and rules promoting biodiversity and eco-management (as applied in Bahia, mentioned at the end of chapter 3). Construction methods, architectural designs, the building materials used and conservation of the local environment and biospheres as single processes present important opportunities and are increasingly used and realised. These are often incentivised by cutting energy costs, as architectural designs, utilising shade, natural lighting, isolating building materials and solar electrification energy efficiency can be substantially increased from the outset. Recycled materials are also increasingly used in construction, including green concrete, which can reduce carbon emissions by 60–80 per cent.<sup>159</sup> The relevant professions for these greening measures, however, are still male-dominated, due to persistent gender patterns in the choice of fields of study (see chapter 2). Green architects and engineers – mostly men – are likely to execute the work. The lower participation of women in construction, prevalent in the brown economy, is not likely to change in the short-medium term within the green economy. Specific promotion and government (educational) policies and regulations are required to advance female participation in relevant study fields and professions.<sup>160</sup>

Other important opportunities for greening and respective gender impacts at the accommodation node relate to:

- **Water management.** Ineffective water management particularly impacts (poor) women, who, as a result, walk longer distances to fetch water for the family. In tourism – though often not implemented – sanitation, adequate water treatment, rainwater collection and wastewater management as well as water consumption in general are closely related to preserving the environment as the primary asset. This should not only be implemented for the sake of biodiversity and the local population but also for the business as such. Nonetheless, tourists never show awareness of the water or waste management of the accommodation and exert no pressure. Local governments – where environmental/sanitation requirements are established at all – do not often follow through on them, in order to attract the tourist infrastructure or due to corruption. Swimming pools, large gardens and golf courses are an issue in water consumption, especially in areas with water scarcity. In such cases, water is often drawn from the surroundings, from community water sources. Low water levels and scarcity of water for the local population are the consequence. Building permits and concessions issued by the (local) governments need to reflect this and either allow only a certain capacity or request compensation measures.
- **Cleansing agents and detergents.** Commonly, more women work in housekeeping than men. Cleansing chemicals are major tools in housekeeping. Using environmentally friendly cleansing agents in accommodation would benefit the environment, the (mostly female) workers and, ultimately, the local community and the tourists themselves through cleaner (drinking and ocean) water. Another issue to be addressed simultaneously is the frequently precarious working conditions. Women often accept formal or informal arrangements, harassment and low wages out of necessity. Jobs in accommodation are often perceived by women as an opportunity to combine work with their household and care responsibilities. However, precarious arrangements frequently leave them more vulnerable to sexual offences.

<sup>158</sup> See Mitchell/Ashley 2009: 3. Nonetheless, combined with a skills development approach (see case x), accommodation can prove relevant for the inclusion of local women and men in (green) tourism.

<sup>159</sup> CNN 2011

<sup>160</sup> Supplying accommodation and furnishing materials used by hotels (sustainable wood, home textiles etc.) represent further potential. However, larger lodges, hotels and resorts usually source these products internationally and not locally, thus offering local economies little share. Nonetheless, sourcing of green, organic products, such as organic cotton towels, can indirectly contribute to greening the node and increasing economic benefits for women (and men).

- **Energy efficiency.** Accommodation in tourism is the second most energy-intensive component in tourism.<sup>161</sup> The amount and type of energy used and consumed therefore impacts local communities indirectly, e.g. through general availability of electricity for them. The various sources of energy used can also have indirect effects on the environment, depending on the energy source. Cost efficiency as a driver has already advanced the introduction of energy efficiency measures, such as energy efficient light bulbs, motion sensor lights and information to tourists. For new accommodation, the use of natural lighting and ventilation can lower consumption (and high energy costs). Clean energy, e.g. solar electrification and solar cooking stoves, are other viable options, especially for small- and medium size accommodation. Family- or women-run establishments would particularly benefit from support in how to increase energy efficiency as part of PSD programmes in tourism. Larger investments, often necessary for new and greener technologies and systems (for lights, refrigeration, ventilation, air-conditioning and entertainment equipment), are usually challenging for them.
- **Waste management.** Tourism facilities produce a great deal of waste. Waste management therefore bears large greening potential and reduces – if undertaken ecologically – negative impacts on local communities. Especially poor, illiterate women are often involved in informal waste related activities.<sup>162</sup> Waste creation from tourism can therefore attract women in particular to engage in informal and (in terms of health) precarious waste-sorting activities in landfills and dumpsites. Separation of waste from tourism, local waste management and recycling systems are necessary. Political decision-makers and local governments should spearhead these, but in absence, the tourism industry needs to take a leading role in order to preserve the destination for both the community and the tourists. Recycling wet waste, as presented in section 3.2.3 and case 13, closing a virtuous cycle, should be promoted. With rising waste management costs, it even presents a viable, cost-effective solution, with positive impacts for all stakeholders.

Tourists themselves have an important role to play in respecting the local environment. Providing information on prevalent issues and patterns in the locality can increase the awareness of tourists on impacts and effects related to their activities and potentially change their behaviour.

## Case 12

### INCLUSIVE TOURISM AT THE COCONUT COAST IN BAHIA, BRAZIL

Inclusive tourism has been introduced as a model at the 'Costa dos Coqueiros' in the north-eastern Brazilian state of Bahia. Within its Tourism-led Poverty Reduction Programme (TPRP), the ITC in Geneva provided technical assistance from 2003–2010. The model, structures, partnership, initiatives and processes established are still ongoing and developing.

#### THE AIM:

To promote sustainable local (economic) development by establishing linkages between tourism activities and local development with an emphasis on local hire and local sourcing.

#### THE APPROACH:

- Participatory priority identification of the community (demand survey, business potential etc), development of a plan with priorities on capacity building, income generation and support for the local culture.
- Establishment of the local Instituto Imbassaí as capacity development provider and coordinator.
- Establishment of partnerships, linkages and Memorandums of Understanding (MoU) between the private sector, eleven resorts, municipalities, research institutions and communities on the one hand and ITC on the other hand.

#### THE RESULTS:

As the main concern is to increase local hire, professional training is a key aspect. More than 5,000 people have been trained in English, literacy, computer skills, civil engineering and organic agriculture in partnership with SENAC and SEBRAE, Brazilian Training Institutions. Some have assisted a number of courses. Illiteracy has been reduced from 36.8 to nine per cent.

Over 5,000 jobs have been created in the eleven participating resorts; an estimated 65 per cent of them occupied by people from the region. The three types of jobs that experienced increases between 2005 and 2007 are tourist services (18 per cent), civil engineering (three per cent) and self-employment (two per cent) (data not sex-disaggregated). Family income levels have increased by one Brazilian minimum salary per month on average and the large majority (73.3 per cent) of participants in an impact assessment consider the generation of employment, work and income to have a positive impact (2007). Improvements in the manufacturing of crafts have impacted positively on women, as it has yielded an income increase of up to 500 per cent.<sup>163</sup>

<sup>161</sup> UNEP/UNWTO 2011: 421

<sup>162</sup> ILO 2011b: 24

<sup>163</sup> The description is based on information from the Instituto Imbassaí, interview with ITC and ITC 2009.

## Case 13

### LOCAL ORGANIC FARMING USING ORGANIC FERTILISER FROM RECYCLED WET WASTE – BAHIA, BRAZIL

On the Coconut Coast, local organic farmers (men and women), previously primarily subsistence farmers, grow vegetables and fruits for tourist resorts. Commercial linkages have been established between participating tourist resorts and farmers (also further inland). 650 farmers<sup>164</sup> benefit from the organic farming component. They have received training on organic farming and diversification, as the tourist resorts have a clear and defined demand. The resorts serve the locally grown, mostly organic fruits and vegetables to their customers.

Further to this, a system of wet waste recycling for further use in organic farming has been established as a pilot. The aim is to scale and replicate it in the tourism resorts. Currently, a community operates a small waste recycling plant around 90 km from the resorts. The wet waste<sup>165</sup> of the surrounding communities is processed in an accelerated biodegradation process into organic fertiliser, taking on average only up to three days.<sup>166</sup> The fertiliser is used in organic food production.

Established in 2007 by the Instituto Imbassaí and the local smallholder farmers' association Itapicirica, the plant, managed by the association, produces on average three tons of fertiliser per day.<sup>167</sup> The composting component has benefitted around 120 families. The fertiliser produced cannot meet the actual demand of local smallholder farmers, who value it for both its quality and price, as they buy it for around six USD per 50 kg, only around half the usual fertiliser price.

### 3.2.3 Food & beverages: greening and women's participation

The food supply chain in tourism bears great potential for local income generation.<sup>168</sup> This depends however on sourcing of goods for consumption from local producers. Net benefits to the local population increase in general, when tourists' needs are sourced locally. Decreasing imports of food products for tourism establishments also reduces the carbon footprint of produce consumed at the destination.

Within tourism, local farmers (taking care of an equal economic integration of women as part of the efforts) can be linked to tourism establishments. In addition, this can help to 'disperse benefits of tourism geographically'<sup>169</sup>. Case 13 provides a concrete example how greening in a destination can be combined with local (green) economic development, supporting organic farming.

#### Upscaling

A system on a larger scale, covering the processing of wet waste of tourism resorts, requires a larger processing plant, located closer to the resorts, to eliminate transportation. The planned new and modern plant will have a capacity to process over ten tons of wet waste per day into fertiliser of even better quality. It will extend over 500 metres of constructed area and requires an investment of about USD one million. Large resorts produce more than five tons of wet waste per day. As hotels currently spend more than USD 30,000 per month to remove their waste and send it to landfills, a processing plant seems not only a viable green solution, but also worth an initial investment. Nonetheless, the investment needed is a challenge, according to the Instituto Imbassaí.<sup>170</sup> Therefore, scaling up the pilot plant with direct greening impact for tourism has not so far been realised.

The issue around management of waste generated by tourism itself, as described in case 13, is a concrete example of oft-required investments and technology for greening. If established, it would be a unique experience: tourism operations generate wet waste as an environmental liability, which can actually be turned into an agro-ecological asset, benefiting the local women and men and the tourism industry in a holistic, green approach. While the investment has proven difficult so far, everyone is interested in the details of how the recycling process is done and planned, in order to copy it, mainly for commercial purposes.<sup>171</sup>

<sup>164</sup> Specific sex-disaggregated data was not available. It was said to include men and women. Interview ITC.

<sup>165</sup> Wet waste as organic waste consists of e.g. food scraps, tree pruning and manure of livestock.

<sup>166</sup> As part of the process the waste is crushed, natural mineral additives added and enriched with macro and micronutrients at the plant.

<sup>167</sup> Four people work at the plant (no details provided on men or women). The plant was made possible due to courtesy in lending over twenty years by the association.

<sup>168</sup> Mitchell/Ashley 2009: 3

<sup>169</sup> Mitchell/Ashley 2007: 3

<sup>170</sup> Banks require collateral from the Instituto Imbassaí as a non-profit organisation, because they have no equity. Political issues and corruption are also impeding progress on the issue. Questionnaire Instituto Imbassaí, February 2012.

<sup>171</sup> Questionnaire Instituto Imbassaí, February 2012.

Within the inclusive tourism effort, a sustainable win-win cycle for both the local population (men and women) and the tourism industry was planned from the beginning on the Coconut Coast in Bahia (see figure 6). The proactive management of the food supply chain in this case creates a win-win solution. It adds value to the value chain of the supplier(s), the farmers and to the tourism value chain. The food served is (mostly) organic, adding value (taste, health and a clean conscience) to the experience of tourism for the consumer and the tourist. The greening impact, now realised on a small scale with the waste recycling plant in the community, would be considerably augmented with the planned processing of wet waste from the tourism resorts into organic fertiliser for local farmers and the local market, thus closing a virtuous cycle.

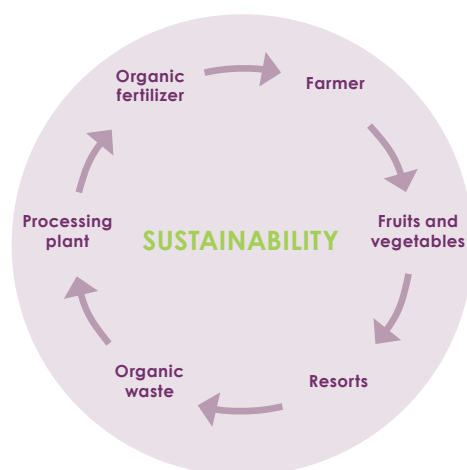


Figure 6: Sustainable and virtuous cycle of waste recycling for organic food production in tourism<sup>172</sup>

Local cultures and traditions in destinations can be preserved and used as part of the tourism experience. The inclusive tourism approach at the Coconut Coast has established a link between the crafts and culture, excursion and food and beverages nodes, by creating traditional produce for tourism, the local community and excursions, as case 14 shows. This measure has specifically ensured that both men and women are equally integrated.

## Case 14

### CASSAVA FLOUR MILL – PRODUCTIVE ASSET AND TOURIST ATTRACTION – BAHIA, BRAZIL

A cassava flour mill has been established at the Coconut Coast, benefiting 42 families (50 per cent constituting of women) and will be opened in late June 2012. According to the Instituto Imbassaí, the mill is ecological, uses electricity and waste wood (authorised by the environmental agency) to process the cassava into traditional cassava flour and dough for traditional produce. It will be sold to the resorts, markets and other clients in the region. As a side-activity, excursions to the flour mill are planned for the tourists.

The mill is a result of a partnership between the resort Grand Palladium Imbassaí (Fiesta Hotels), the Imbassaí Institute and the Municipality of Mata de São João. Management will lie in the hands of the 42 families, the Instituto Imbassaí and the Municipality. The families also benefit from courses on organic production, commercialisation, management and marketing.<sup>173</sup>

### 3.2.4 Crafts: greening and women's participation

Crafts in tourism can generate considerable revenue for local artisans, depending on the destination, which is why crafts market potential cannot be generally established but must be individually investigated as part of, for example, PSD interventions or value chain development or upgrading. Handicraft production often integrates a large number of women, depending on the cultural context and the type of craft.<sup>174</sup> Greening potential in crafts, as a major supply chain to the tourism chain, is related to the whole production process. This includes the main inputs and resources (sustainable type of wood or materials) used. Colouring is usually done with dyes (chemical vs. natural). Other important issues are the materials used in the treatment of the handicrafts (sealing etc.) and water management.

Upgrading strategies of the crafts chain can lead to substantial profits and create economic opportunities for women, as case 15 on the Coconut Coast shows. Actual success is very much dependent on the products on offer, the tourism destination and tourist segment (type of demand, determining the market segment). It is not therefore possible to make predictions of market volumes as these largely depend on

<sup>173</sup> Questionnaire Instituto Imbassaí

<sup>174</sup> For example, men usually dominate woodwork. However, not all craftwork can be considered green and sustainable – much depends on which materials are being used in what kind of production process.



thorough analysis in each destination. These can actually constitute the beginning of PSD interventions. A number of cases introduced in this study could be suitably linked to tourism as part of the crafts and culture node, e.g. the APE products made from recycled materials in Egypt or the bags and fashion accessories produced by poor communities of Ethical Fashion Africa (e.g., for a luxurious tourism segment). Within these kinds of business interventions it is important to ensure that women participate at all levels of the chain, including manufacturing, marketing, management and retail.

## Case 15

### BENEFITS FROM IMPROVED PALM FIBRE CRAFT PRODUCTION – BAHIA, BRAZIL

On the Coconut Coast, crafts, up to 99 per cent produced and sold by women, have been linked commercially to tourism. The raw material used for bags, mats, table sets etc., is palm fibre. The process, including use of natural dyes for colouring, is environmentally friendly. The local artisans have improved their livelihood considerably as a consequence of the cooperation within the framework of the inclusive tourism efforts. The production process has been improved, the design perfected, marketing organised and new sales channels established, thus upgrading the value chain. Today, the crafts-women also export to Italy, Spain and Portugal.

An artisan cooperative was formed for scale, as hoteliers are not interested in buying individual pieces, e.g. for the hotel store. The products are valued, supplied to different sales points and can now achieve a higher price.<sup>175</sup> The income increased by around 500 per cent, benefiting 350 families in total. Whereas in 1999 the crafts women earned on average around USD 120, they now get to earn over USD 600 per month.<sup>176</sup> Primary education attendance has increased eightfold in the area,<sup>177</sup> indicating, that indeed households have benefitted from the efforts and can, consequently, send their children to school.

### Traditional gender patterns in crafts

Upgrading strategies for crafts are not to be directed exclusively at women but should promote equal opportunities for both women and men. In fact, the palm fibre production is not limited to women and included a male member until recently. However, it is true that women traditionally work in the weaving of palm fibre for artisan products in Bahia.<sup>178</sup> The success of the products with the improvements of production and manufacturing processes has not hitherto altered these traditional gender patterns. Viewed from a different angle, this also means that the improved and successful production has not been taken over by men, as has often been observed when female businesses become profitable.<sup>179</sup>

The detailed value chain mapping of greening and women's participation in the Bahia case in Brazil can be found in the Annex on page 63.

### Green jobs and businesses in tourism

Sustainable tourism has the potential to create new green jobs, e.g. through local sourcing, local hire and new supply chains evolving for tourism services and activities, including local tour operators and guides. However, their numbers might not be vast<sup>180</sup> and will vary considerably, as they are also dependent on the structural contexts of the destinations and the tourism segment pursued. Existing jobs might rather be 'greened' with increased sustainable tourism efforts. As part of these efforts, the industry needs to create the globally projected 69 million additional jobs in tourism by the WTTC until 2021 as green(er) jobs. Inclusive approaches in tourism can also prevent labour migration to large urban centres such as Salvador or São Paulo. Labour migration often leads to women being left with the children in rural areas, often with an increased triple burden of work, household and care responsibilities. Successful inclusive tourism approaches can even reverse migration, as has been observed on the Coconut Coast. Unemployment had been around 30 per cent in the area in 2003 and is now almost non-existent.<sup>181</sup>

If green sourcing, construction and operations in tourism are combined with a pro-poor orientation and local sourcing, the increasing and changing demands of tourists can be met with possible cost advantages for the industry. As a consequence, supply structures will change and develop market opportunities for green (and local or regional) businesses. This can foster and create new green(er) businesses, or increase the size

175 The quality, design, marketing and distinctiveness determine, in general, how much tourists spend on crafts. A crucial factor however is accessibility for tourists.

176 Numbers rounded from 200 and 1.000 Brazilian Real with currency rates of February 2012.

177 ITC 2010

178 Questionnaire Instituto Imbassai

179 See Mayoux 2009.

180 Interview ILO

181 No differentiation submitted of men and women. Questionnaire Instituto Imbassai 2012.

of existing businesses.<sup>182</sup> As many in tourism work on their own account, (female) entrepreneurship would also be promoted. Nonetheless, it is important to ensure that these activities do not deepen the exploitative patterns of semi-formal working agreements within the industry.

### Capacity development

The principal constraint for tourism and the integration of the local population is the lack of tourism-relevant skills. Relevant technical schools and training opportunities are often unavailable. This is particularly true for new skills needs emerging with the green economy. Stakeholders in the destination, including the tourism industry, local service providers and municipalities etc., need to secure a joint approach to capacity development. This approach must promote gender equality and empower women by specifically involving them in areas with (economic) potential, encouraging women also for training for more technical (green) jobs and by improving women's managerial skills to create equal opportunities for women and men in management.

## Case 16

### CAPACITY DEVELOPMENT FOR TOURISM-RELATED SKILLS – BAHIA, BRAZIL

Capacity development for tourism-related skills has also proved vital on the Coconut Coast and a hotel school has been established. Establishing linkages between the hotels, the community and the municipality has proved essential in the process. Additionally, there is always a need for a clear driver and coordinator of the process, a role the local Instituto Imbassaí has taken on. The official framework of the efforts has been established through signed MoUs between the hotels, partners and ITC.

### Inclusive approach can contribute to greening and women's participation

With an adequate approach, tourism can contribute significantly to the ecological, economic and social development of a region and benefit its local population, both women and men. This has been confirmed in the Coconut Coast example. Nonetheless, it is always important to consider the factors contributing to improved gender equality or inequalities.

The main driver for greening mainstream tourism has long been the cost-reduction potential in the area of energy efficiency. This has increasingly been combined with Corporate Social Responsibility (CSR) efforts. Some greening initiatives and orientation towards ecotourism and local (economic) development might also have been driven by customer demand. Mass tourism growth has stagnated, and since ecotourism and related segments are predicted to grow more rapidly in the coming years,<sup>183</sup> the mainstream industry will likely follow the trend and increase greening efforts. Nonetheless, policies and regulations in the destination also have a major function in securing sustainability. In Bahia, for example, resorts have to invest one per cent of their revenues in the local communities and have to protect the biodiversity before building a resort.<sup>184</sup> As these regulations are being enforced, they benefit the area and the population.

Business structures, the choice of operations, economic partnership and sourcing matter significantly for inclusive and pro-poor green tourism. Integration of greening with an explicit pro-poor and gender perspective into (business) planning, operations and management is needed. The positive (or negative) impact on men and women and the environment from tourism will, however, always depend on how and with what strategic orientation and interest tourism is developed at a destination.

<sup>182</sup> An issue related to larger size hotels or resorts is procurement of furnishings. A local furnishing industry might not emerge if an area is developed for tourism, since it represents one-off orders with no long-term business prospects. Nonetheless, sourcing green furniture made from sustainable materials, even if internationally, improves the environment and production processes for the workers of the supplier – possibly even in another developing country.

<sup>183</sup> UNEP/UNWTO 2011: 424

<sup>184</sup> Interview ITC

### 3.3 Summary:

#### Making women's participation in green growth a reality

Chapter 3 analysed the main nodes of the cotton and tourism value chain.

**Cotton segment** (production, harvest, ginning of cotton) – greening and women's participation:

**Key opportunities:**

- Women have access to a (traditionally male) cash crop with organic cotton as it eliminates hazardous agrochemicals, the need for input and related credit.
- Organic cotton improves health, soil fertility and yields economic benefits through a guaranteed minimum price (if Fairtrade and organic).
- Organic fruits and vegetables, planted in-between as part of organic pest management, improve food security and create side value chain opportunities for women.

**Key challenges:**

- Female economic participation and benefits do not guarantee control over income.
- Female fields often lie considerably further away than male fields, impacting negatively on yields.
- Transport of organic compost to the fields and access to auxiliary means poses a (physical) challenge for women.

**Textile segment** (spinning, weaving, dyeing, garment fabrication) – greening and women's participation:

**Key opportunities:**

- Textile manufacturing processes up to the fabrication of garment (handicrafts and with green technology) present (economic) opportunities for women.
- Linking female manufacturers and MSMEs, using natural materials and dyes or recycled materials to textile or fashion markets and industries.
- Textile dyeing with natural dyes or environmentally friendly technology impacts positively on women's health.

**Key challenges:**

- Prevailing precarious working conditions in textile and garment fabrication and low possibilities of advancement for women (e.g. to supervisory positions).

**Tourism** (accommodation, food & beverages and crafts) – greening and women's participation:

**Key opportunities:**

- Design of holistic sustainable and pro-poor and community-oriented inclusive tourism systems will positively affect the high number of women working in tourism (services).
- Virtuous cycles can be established in tourism, e.g. using wet waste recycling as organic fertiliser for local organic (agricultural) produce to be consumed by tourists. Local economic opportunities for both women and men are created with important secondary impacts (reversing migration, health impacts etc.).
- The crafts chain in tourism offers huge potential, particularly for women, in green production and manufacturing processes, if markets are linked.

**Key challenges:**

- Widespread international sourcing of goods and services in tourism.
- Precarious working conditions for women at the accommodation node.

**General key challenges** for greening and/or women's participation:

- Varying potential for increasing women's participation in the green economy within nodes of a value chain requires gender-sensitive value chain analysis, development and upgrading.
- Cost-efficiency as a driver of green growth for the private sector must be substantiated by an orientation towards inclusive green growth and the realisation of standards and rights. Decent work has to be part of the green agenda.
- Changing power relations can pose risks for women's involvement and increase gender-based violence and need to be addressed.

Main **success factors** for realising the potential for women's participation in (green) value chains have been identified as:

- Linking buyers to producers (e.g., organic cotton and crafts supply chain).
- Strengthening of joint (governance) structures, such as cooperatives for economies of scale, joint use of equipment, possibly also for access to credit and decision-making.
- Specific requirements for the inclusion of women increase women's participation in production and relevant structures.



# 4

## Assessment of potentials, risks and relevant approaches for women's participation in the green economy

The growing interest in a green economy has been intensified by widespread disillusionment with the prevailing economic paradigm. The concept of green growth is evolving as an alternative paradigm, based on the idea that increased wealth need not necessarily lead to growing environmental risks, ecological scarcities and social disparities. It is becoming evident that there is sound environmental, economic and social justification for the transition to a green economy. The private sector with its power for innovation has an important role to play in the transformation process, but must nonetheless be appropriately stimulated by governmental incentives and regulations.<sup>185</sup>

Gender equality and greening can benefit each other. For example, greening can be driven by consumption preferences of women in industrial and developing countries towards healthier products and processes. At the same time, working with (poor) women can minimise negative environmental impacts through harmful practices, e. g. in the use of fuel and water. In turn, greening offers women opportunities for (economic) participation, increased income and health benefits.

### A potential fully realised?

The title of the present study poses the question of whether the potential for women's participation in green growth has been fully realised. The actual potential for women inherent in green growth and the green economy has not yet been fully realised – but such a potential exists in the transition to a greener economy. However, numerous obstacles limiting the meaningful and equal participation of and benefits for women have also been identified. The following assessment offers an analysis of the obstructive gender patterns, opportunities and risks identified and approaches to be taken into account in development cooperation in general and PSD interventions in particular. Nonetheless, the issue of gender equality in the green economy requires more in-depth research than this scoping study can offer. Specific case studies, looking in detail at the differentiated impacts of greening, ideally over time, would be necessary to complete the picture.

General determinants for gender equality or inequality in the green economy were introduced in chapter 2. They reoccurred (often as obstacles) throughout the study in the specific case studies and the two value chains in chapter 3. As these gender patterns affect women's participation in green growth and PSD – and vice versa, they are briefly summarised in the following. Thereafter, potentials and challenges for women's participation in the green economy are identified, based on the preceding chapters. These lead to the identification of relevant approaches to foster women's participation in the green economy within PSD.

### 4.1 General gender patterns and their impact on women's participation

A major finding of the study is that socially constructed and persistent gender patterns, obstructing equal opportunities and access in the brown economy in developing countries, are similarly applicable to the green economy.

#### Time burden

One primary barrier for women is the unequal burden caused by time poverty. Women balance the triple burden of paid work, care and housework. Their triple burden seriously limits their economic opportunities. They are often less flexible concerning working hours and place, work fewer hours in paid labour and are perceived as less career-oriented than their male counterparts, owing to family obligations.

#### Education

Gender differences in education exist and affect women's participation in the green economy. Even though gender gaps are closing in primary education in many countries, women still tend to choose fields of study that limit their career opportunities, both in the brown economy and particularly in the green economy, where many technical skills are needed. The skills and professions that have been identified to be particularly relevant for the green economy tend to be male-dominated.



## Case 17

### DOORSTEP WASTE COLLECTION IN A MOU WITH THE MUNICIPALITY IN PUNE, INDIA – SWaCH

The Kagad Kach Patra Kashtakari Panchayat (KKPKP) an association of around 5,000 informal and self-employed waste pickers, established in 1993, began doorstep waste collection in Pune. It negotiated the right to execute door-to-door waste collection with the municipality, leading to a MoU and the creation of SWaCH. (Seva Sahakari Sanstha Maryadit). SWaCH has been operational since 2008 with around 2,000 mostly (urban) poor, illiterate and self-employed waste collectors, 1,610 of whom are women. They collect segregated household garbage in pairs with basic equipment (pushcarts, buckets, protection), covering around 300–500 households, and collect the user fees directly.

The municipality, as part of the MoU, contributes to training provided for members of SWaCH on waste, waste management and recycling, including related hazards. The benefits identified by the women in a focus group discussion are improved working and health conditions and higher income, which has enhanced their livelihood. Importantly, their self-esteem has increased through the social recognition. The cooperative and its mainly female members also target specific gender concerns, such as child labour, early marriage, access to public health and others. Besides medical insurance, the waste collectors have opened bank account through SWaCH, and therefore have access to credit and to educational scholarships for their children. SWaCH has also started composting and an additional e-waste component (in partnership with GIZ).

The model promotes an alternative decentralised waste management model that decreases informality and vulnerability. Besides the social recognition, it improves access for (female) waste pickers to more decent working conditions, although some health issues still prevail. The model, formalised with local government, represents an important alternative in times of declining access to waste for informal waste pickers, due to the advancement of the green economy, as governments step up in their waste management efforts, close landfills and establish waste management plants.<sup>186</sup>

### Labour market

The first obstacle for women is the transition from school to work. Furthermore, women appear to be concentrated in low-productivity jobs. They tend to work in smallholder farms, run micro- or small businesses and are overrepresented in the informal sector. New technologies and greening in general can create green jobs, bring about direct health and cash benefits and alter existing gender patterns and norms.<sup>187</sup> However, losses in the brown economy through the transition might disproportionately affect women.

### Access to productive inputs

Women's limited access to productive inputs such as know-how, land, finances, technology and equipment constitutes another obstacle. They often lack comprehensive information on markets, price developments and consumer preferences, which are essential to meet their demands. These obstacles are rooted in market and institutional failures, e.g. bureaucratic hurdles and discriminatory legal frameworks, such as property rights or credit provisions. Technology training is therefore an important entry point for women to enter the green economy.

### Comprehensive participation of women

When analysing underlying gender patterns limiting women's economic participation, it must be emphasised that increased economic participation of women does not automatically lead to de facto realisation of gender equality. Access to economic resources does not automatically imply control over them. Economic benefits, specifically control over income, are dependent on socio-cultural factors, as are all gender power relations. These are context-specific, cannot be generalised and require donors, governments and any others involved to conduct thorough analyses in order to prevent unintended impacts. In many cases, decisions at household and community level are still taken by men. The deconstruction of gender roles in the economy can even occasionally lead to increased tensions and even violence in families and communities. It is not enough therefore merely to foster women's economic participation: comprehensive programmes, which include both women and men, should accompany the transformation of gender roles.

<sup>187</sup> Economic benefits, specifically control over income, are dependent on socio-cultural factors, as all gender power relations. These are context-specific, cannot be generalised and require all involved, whether donors, governments or others, to conduct thorough analyses in order to prevent unintended impact.



## Case 18

### THE FLOWER INDUSTRY IN ECUADOR AGAINST GENDER-BASED VIOLENCE

**Expoflores is an association of ten flower farms in Ecuador with over 1,000 employees, the majority of whom are women. Every second to third woman in Latin America experiences violence in her life. Expoflores therefore collaborates with the GIZ programme ComVoMujer (Combating Violence against Women in Latin America) to prevent and combat gender-based violence. A first step was the assessment on the prevalence of gender-based violence amongst workers. Then (potential) victims were informed on support services in the area. Furthermore, medical staff were trained to identify cases of violence and be able to support the victims. Norms and standards on the prevention of gender-based violence and services for victims were established. A campaign was implemented promoting a white rose as a symbol of non-violence. A number of indicators, designed to assess the impact of gender-based violence on the productivity of the farms, were developed jointly with leadership, the workers themselves and human resource managers. A business certificate for gender and climate change sensitive producers has been developed for the flower industry in Ecuador. Ecuador's vice president, Lenin Moreno, publicly supports the campaign.<sup>188</sup>**

## 4.2 Potentials for enhanced women's participation in the green economy

A number of developments and enabling framework conditions hold potential for the enhanced economic participation of women in the green economy.

### Consumer-driven change and women as change agents

Economies and businesses are driven by demand supply (e.g. local and global commodity prices). Therefore, these two factors and the increasing understanding of the limits to the exploitation of natural resources by governments, private businesses, civil society and consumers are leading the transition towards a greener economy. Furthermore, a transition to greener production methods can potentially also reduce production costs (e.g. through reduced water and energy consumption). The transition to a greener economy is also reflected in international treaties although these are still to be put coherently into practice.

Market demands can play a role in this regard. Markets for green and organic products have been growing over the past decades, in particular in industrialised countries. This growth is based on new consumer movements, interested in 'green' and ethical consumption. Women, with a stronger preference for green and healthy solutions<sup>189</sup>, can be change agents as market actors and thereby one of the drivers of green growth. In developing countries their (greener) choices are often driven by necessity (and access). Energy-efficient cooking stoves, for example, reduce time spent on firewood collection and free women from the need to find increasingly scarce burning material. Companies in general react to shifting demands, as the rise in organic and certified goods consumed indicates<sup>190</sup>. New green products emerge as a consequence – and should also be made available for the local market. Existing value chains undergo (process, product or functional) upgrading processes, to fit new markets. The growth these new green markets create holds potential for women, if the upgrading process includes them and their advancement in the chain as an actor.<sup>191</sup>

### Positive effects of globalisation

International and regional trade has proved an important tool for evolving new markets. The spread and accessibility of affordable communication technology, as part of globalisation, has created the potential to reduce gender disparities by connecting women to information, markets and therewith to economic opportunities.<sup>192</sup> Increased information and transparency can encourage countries to promote gender equality, if they become aware of the benefits of promoting gender equality. These benefits can also unfold and support the (transition to a) green economy if greening becomes a competitive factor for private companies.

### Conversion to organic as access to economic opportunities

Converting to green production methods (e.g. organic agriculture) and products can substantially diminish barriers for women's economic participation, as fewer inputs are required (e.g. fertiliser, pesticides, credit). In some cases, such as organic cotton, eliminating a health risk can be the entry point for women to a significant economic activity, particularly important for female-headed households and widows. Cash crop commodities for export and (niche) markets present significant economic opportunities for (smallholder) female farmers. These opportunities offer consider-

188 See GIZ 2012.

189 See OECD 2008: 65.

190 For example, Fairtrade sales grew by 15% in 2008–2009, see FLO Facts and Figures.

191 See Laven/Verhart 2011: 7ff for more on the chain empowerment framework.

192 See World Bank 2012: XXI.

able positive health effects as opposed to health-damaging production methods in the brown economy. Organic farming of cash crops additionally creates other organic by-products and food security through diversification. Sustainable farming methods enhance soil fertility, securing livelihood for future generations.

A number of effects at higher aggregated level can be observed across sectors (e.g. agriculture, tourism, waste management, (renewable) energy and construction) from linking greening with gender equality in green growth. This is illustrated in figure 7, using the example of cotton.

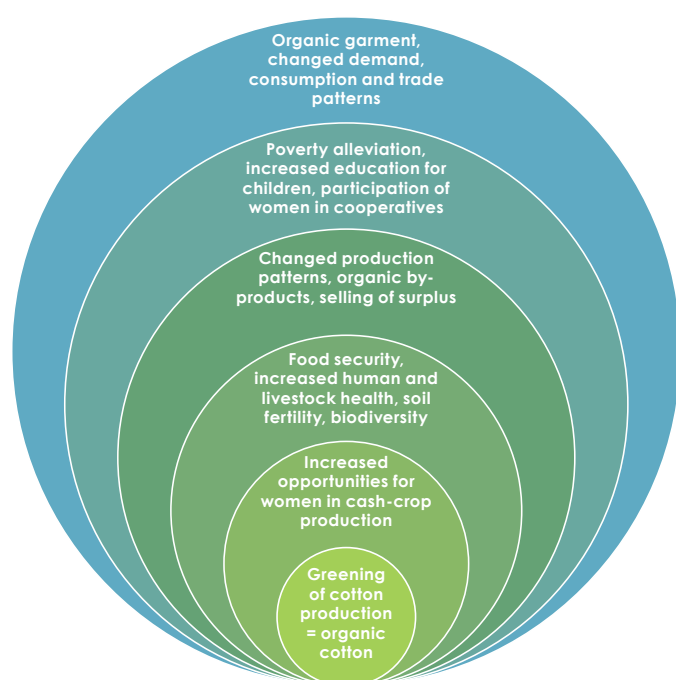


Figure 7: Effects of greening and women's participation in cotton

SOURCE: AUTHORS

### Social and environmental standards

Social and environmental standards<sup>193</sup>, such as Fair-trade, or the rise in demand by consumers, present opportunities for the private sector, consumers and enhanced women's participation in the value chain. Though not unchallenged, they are generally transparent about production and product origins and thereby support consumer choices. The markets for certified products have developed and are increasing, as certified goods are no longer only niche market products, but increasingly present in large supermarket chains. Detailed information on the various standards, awareness raising and educational campaigns can transmit essential information to the consumer. This is not only important to control the private sector for potential 'greenwashing' but can also promote demand and the shift to green technologies, processes and products. Both the supply and demand side can thus be influenced positively.

### Case 19

#### SPECIALTY CHOCOLATE EKOCOA

The chocolate EKOCOA, produced by Kichwa from the Amazonia region in Ecuador with support from the Fundación Conservación y Desarrollo<sup>194</sup>, is a niche market product primarily for the national market but illustrates that niche products can also be an important driver for inclusive green growth – and have a positive impact on gender equality within an indigenous context. However, the foundation, which works with indigenous communities in Ecuador to develop their own products, such as EKOCOA, confirmed in an interview that attention, time and profound knowledge of the markets, the actors involved and the linkages are still required.

### PSD

The crucial entry point and potential for green PSD efforts aiming at enhancing gender equality, is an existing market or solid market opportunities and starts with a strong business case (product, producers, structures, quality). The value chain development or upgrading process should integrate women where possible and at all nodes and levels. Although development partners are committed to poverty alleviation and gender equality, they 'continue to ignore gender issues'.<sup>195</sup> Gender inequalities might even be further increased thereby.

193 Such standards often explicitly foster women's participation, e.g. through cooperation with women's cooperatives. However, this is an area that still requires further strengthening.

194 See [www.ccd.ec](http://www.ccd.ec) for more.

195 Mayoux 2009: 1

## Case 20

### CONSEQUENCES OF AN INADEQUATE GENDER ANALYSIS

**In a natural resource management project in Niger, windbreaks were set up to prevent erosion. When the project was designed, it was not taken into account that small ruminants are an important source of income for women in the region. The windbreaks divided up their grazing grounds and thus entailed a de facto loss of income for the women. The fields are protected, but the overall impacts of the project on women specifically were mostly negative, particularly since they were not able to use dead wood from the windbreaks as fuel wood. The level of motivation of women to participate in the setting up and care of windbreaks was thus naturally low. A gender-sensitive target group analysis would have identified the problem beforehand.<sup>196</sup>**

Establishing direct buyers' contacts and eliminating several layers of traders can remove the barrier of finding a market willing to pay for the sustainable production costs, manifested in higher and fairer (guaranteed) prices or wages and premiums. When linking or establishing markets, local or regional value chains offer viable alternatives to global chains, as ever-increasing standards and regulations in global markets or certification costs also bear the risk of increasing barriers for primary producers, thus often affecting women.<sup>197</sup> Development partners and, for example, chambers of commerce can act as agents to link producers to (export) markets and buyers. The ITC is making a deliberate effort to reduce inequality and barriers for women-owned businesses: the Global Platform on Action for Sourcing from Women Vendors, initiated by ITC, seeks to link multinational corporations with female entrepreneurs.<sup>198</sup> Initiatives like this can bring about scale and reduce inequality through the visibility of women-led enterprises.

An essential question in green PSD approaches to enhancing gender equality revolves around the chosen strategy. Addressing women exclusively is not enough to transform unequal gender patterns. On the contrary, it can also increase resistance among men. Men should therefore also be incorporated as change agents for the transition towards a green economy and gender equality. Newly emerging value chains can increase women's economic participation and benefits in particular, as gender roles are often still negotiable when new products or technologies are

introduced. However, in order to realise the full potential, gender equality also needs to be considered in relation to existing products and value chains beyond niche markets. The processing and manufacturing nodes are of particular interest; however, women often do not participate at manufacturing level or, do so often under precarious working conditions. The technology required for the processing and manufacturing process is also often a challenge because women have limited access. Collective equipment, through community structures for entrepreneurs or smallholders, can support the efforts to move up in the value chain and reach economies of scale.

### Scale-up

Organisation of producers with particular emphasis on equal women's participation in associations and cooperatives or MSMEs present important opportunities for PSD, relevant for scale-up. However, scaling up often remains challenging since most greening efforts benefiting women still occur at micro level. Another common practice is that greening takes place within specialised industries (e.g. renewable energies), which often increase barriers for women, at least in the short-term.

### Institutions

Women's participation in institutions that represent them as female workers in green professions or as entrepreneurs (chambers, unions, cooperatives) is still limited and should be enhanced. Depending on the context and the specific aims, this can for example be achieved by specifically approaching women to become members, addressing what they identified as challenges to membership (e.g. by developing appropriate meeting schedules, influencing existing cultural norms through dialogue and work with men, changing male dominance through increased female representation and sensitising men and local authorities), or even through the establishment of quotas. Moreover, cooperatives, unions and chambers provide women with or facilitate access to inputs and training, necessary to level the existing gender gap. The case of cooperatives in some Fairtrade programmes with set requirements around women's participation has shown that these can indeed increase female participation.<sup>199</sup> However, even where women become members, they are often underrepresented at decision-making level. Alternative or accompanying professional networks of women offer valuable opportunities for exchange of information as well as mutual strengthening of female entrepreneurs and representatives. However, this should not substitute mainstream representative bodies in order not to further marginalise women. In less developed economies,

<sup>196</sup> See GTZ 2000.

<sup>197</sup> Mitchell/Cole 2011: 241

<sup>198</sup> See <http://legacy.intracen.org/docman/PRSR18242.pdf> for more.

<sup>199</sup> Nonetheless, requirements alone will not change existing cultural norms and might only work for the time the programme is in place. Additional measures working with existing gender norms are therefore required.

necessity is the primary driver for female entrepreneurship.<sup>200</sup> Nonetheless, successful green entrepreneurs, especially in atypical professions can serve as important role models and can assist in changing existing professional gender patterns. Institutions can support these role models and help to disseminate their story so as to inspire others.

## Case 21

### PROMOTION OF WOMEN IN ATYPICAL PROFESSIONS

A positive example of how to promote women in atypical professions can be found at [www.egypt-at-work.org](http://www.egypt-at-work.org). The GIZ-supported initiative 'Egypt at work' includes training in photography for employment facilitators, a website, exhibitions, and public discussions related to gender-related job profiles and perceptions of work. A series of photographs has been developed, which illustrates women in a variety of jobs. The 'women of the month' feature provides a space for further affirmation and recognition of women whose occupations and attitudes go beyond stereotyped female roles.

## Policies

The examples analysed reveal that women's participation in green growth is dependent on markets, business opportunities, demand and a regulatory framework. Policies, institutions and norms all shape the framework conditions for women and can positively enhance their participation and benefit. Greening policies should therefore integrate a gender perspective to foster equal participation and benefits for women and men alike. However, there is no 'global blueprint', and thus, in order to develop effective and gender-sensitive policies and frameworks, a thorough gender analysis is needed as a basis for policy development, taking into account industries, sectors, education opportunities and skills, regulations and incentives.

## 4.3 Challenges to women's participation in the green economy

The examples analysed for this study have confirmed that while green growth offers potential for improving gender equality, the transition to a green economy also presents certain challenges. The risks emanating from the transition can specifically impact on the local communities and both female and male workers in developing countries and need to be mitigated within the transition.

### Harm through the transition to the green economy

Not all measures to promote green growth promote gender equality or help alleviate poverty. For example, shifting from coal-based energy supply to renewables may initially lead to higher unemployment and social tensions.<sup>201</sup> Hence, management of the shift towards a green(er) economy is the entry point to promoting gender equality and avoiding negative consequences for women. Compensatory measures are required to offset additional burdens on poor populations resulting from the economic restructuring. These burdens can be severe for local communities, as the following example illustrates.

## Case 22

### BIOFUEL PRODUCTION IMPACT ON WOMEN

Liquid biofuel is often produced in developing countries. Biofuel production is also connected with deforestation, which has a severe impact on local communities and biospheres. Moreover, access to inputs (land, fertiliser, pesticides) is needed for large-scale plantations of biofuel production. This often favours men who benefit from the new income opportunities from biofuels. Furthermore, if women, who often grow family crops on already marginal lands, do not participate equally in decision-making on land use, they lose their subsistence crops. This has an impact on their economic output and household food security. The side-effects of large-scale plantations for liquid biofuel production, such as depletion of natural resources, impact women more than men. This is due to the fact that women are usually responsible for water and firewood collection.<sup>202</sup>

201 See BMZ 2011.

202 See FAO 2008 for more on differentiated impacts of liquid biofuel production.

Although environmental policies are sometimes seen as a potential threat to jobs, employment losses resulting from ignoring the environmental crisis are likely to be far more pronounced: resource depletion, loss of biodiversity, as well as storms, floods and droughts induced by climate change will cause ever growing costs and increasingly undermine the viability of many businesses and livelihoods in agriculture.<sup>203</sup>

### Health risks

Green jobs minimise some of the particularly hazardous working conditions and health risks connected with the brown economy, e. g. as in coal mining. Nonetheless, in some sectors, such as waste management, health risks might only be marginally diminished through greening. New and emerging risks to occupational safety and health are associated with new technologies in green jobs.<sup>204</sup> For example, fifty different cancer-causing chemicals are used to manufacture solar panels, implying high health risks to manufacturing workers. Toxic waste after their life cycle implies additional potential health risks in the waste sector.<sup>205</sup> The gender-specific health and environmental impact of the different technologies must always be investigated and minimised.

### Work load

Another risk of greening is the potential additional workload, which often impacts disproportionately on women, as there is no corresponding reduction in their household and care-related work. This might serve as a disincentive for women to engage in the green economy. Enhanced participation of women in the green economy should also imply or lead to changes in the gendered division of labour on the community and at household level. It implies engaging both women and men in order to transform prevailing gender patterns.

### Access to and control over income

Increased and independent income for women allows for greater independence in decision-making on spending at intra-household level. However, the income generated through women's participation is still often received and controlled by men. Income control is very much related to intra-household dynamics<sup>206</sup> and existing power relations. Women's participation in the green economy does not therefore automatically lead to gains in gender equality at household level.

### PSD

Many initiatives in PSD tend to incorporate either a greening or a gender approach. The linkages between the two perspectives are however rarely integrated. This entails the risk of gender-blind green PSD, further disadvantaging women in what actually constitutes an enormous opportunity and is a defining dimension of the green economy.

### Price pressure handed to producers

The challenge in commodities is that the value with the greatest profit margins is usually not added by direct producers, but by other actors in the chain. Coffee growers, for example, usually export the green beans to a roasting company. The roasting companies roast the coffee increasingly as specialty coffee and benefit from the highest profit margin in the chain. They sell it to the retailers, who again sell it by the cup or pack. It is therefore important for the producer how the prices are negotiated and defined. Contracts or fixed prices, such as fair trade minimum prices, help producers – especially women with lower bargaining skills – charge higher prices. However, even though the profit margins increase downstream in the value chain, unfortunately the market and price pressure mostly accrue upstream in the value chain to the women and men growing the coffee, cocoa, rice, tea or cotton.

### Policies

Greening policies and instruments such as environmental taxation, norms and regulations, while intended to benefit both women and men, can potentially hinder women's participation in the green economy. Women with limited access to networks might not be able to develop the corresponding know-how concerning norms and standards and implications of policies. Consequently, women might well miss opportunities potentially arising from policies. However, greening policies can also be beneficial to women as – in some regions at least – women tend to be more open to green production methodologies and products. Focus group results among cotton farmers in Kyrgyzstan have shown for example that men would be the first to try out something new; in West Africa it would be the women, possibly overtaken by the men subsequently.<sup>207</sup> Successful and profitable ventures by women often run the risk of being taken over by men.<sup>208</sup> Such patterns and impacts will have to be further investigated.

In order to ensure inclusive green growth geared towards the poor, particularly women, public policies must be part of the equation to accompany market

203 See UNEP/ILO/IOE/ITUC 2008: 8.

204 See ILO 2011c: 8.

205 See [www.renewableenergygeek.ca/solar-power/solar-panels-health-warning-hazard](http://www.renewableenergygeek.ca/solar-power/solar-panels-health-warning-hazard).

206 Mitchell/Coles 2011: 249

207 See Pineau 2009 and Bachmann 2010.

208 See Mayoux 2009.



mechanisms.<sup>209</sup> The World Development Report 2012 identifies four priority areas in which policies can make a real contribution to gender equality. These are equally relevant in enhancing women's participation in the green economy: *'(1) Reducing gender gaps in human capital – specifically those that address female mortality and education. (2) Closing gender gaps in access to economic opportunities, earnings, and productivity. (3) Shrinking gender differences in voice and agency within society. (4) Limiting the reproduction of gender inequality across generations. These are all areas where higher incomes by themselves do little to reduce gender gaps, but focused policies can have a real impact.'*<sup>210</sup> Such policies should include all the areas identified in chapter two, namely, land laws, and related inheritance laws.

### Lack of data

The lack of qualitative and quantitative sex-disaggregated data is putting the appropriate inclusion of gender into greening initiatives as part of PSD at risk. Even when data is collected, the different target groups (such as farmers, households, workers) are often not differentiated and segregated according to sex, age or income level. Consequently, gender is not sufficiently reflected in the design and planning of interventions and the development of public policies, strategies and action plans. Differentiated (socio-economic) impacts on men and women are impossible to assess and positive results on gender relations cannot be communicated. The present scoping study occasionally faced similar difficulties and lack of disaggregated data.

Current research tends to focus on either gender equality – often connected to climate change rather than to the green economy – or green PSD. The intersection of the three topics of PSD, green growth and gender equality is still largely neglected. A variety of research questions need further investigation in order to identify suitable interventions to enhance women's participation and, ultimately, decision-making power at various levels. In particular qualitative research is needed analysing in specific contexts, what women perceive as barriers to their effective participation and what their recommended strategies would be to address these barriers.

## 4.4 Approaches enhancing women's participation in the green economy

There is considerable potential to enhance women's participation and transform existing gender relations in the green economy. In fact, as illustrated above, greening presents multiple entry points to enhance gender equality. Approaches to increasing women's participation in the green economy should build upon inherent opportunities in the green economy, particularly in green PSD. These approaches also need to minimise the risks involved for disadvantaged groups in general – and women in particular. The economic paradigm shift will not automatically lead to social inclusion, poverty eradication and gender equality. Even though these dimensions are inbuilt in the underlying concepts and corresponding policy papers, they still tend to be neglected in current approaches – or cannot be sufficiently assessed owing to a lack of (sex-disaggregated) data. However, it has also been demonstrated that green growth will not be inclusive if the gender dimension inherent in the transformation is not systematically addressed. The following principles should therefore be incorporated.

### Multi-level approaches

The gender patterns and examples assessed in the scope of this study have revealed that women's participation in green growth and greening as such, is dependent on a number of factors at micro-, meso- and macro level. It is influenced by international and national policies and corresponding interventions located at different levels. A multi-level approach is therefore indispensable if the potential of women's participation in green growth is to be fully realised.

Micro level interventions entail a number of aspects related to alternative production and manufacturing methods. These include the assessment of gendered implications of the transition to green methods and products and the development of gender-sensitive value chains.

Meso level interventions need to foster female entrepreneurship, e.g. through (green) skills development, support for cooperatives, associations, unions, chambers and networks as well as the dissemination of promising examples and role models. Efforts should be made to connect producers with markets and to link niche markets with (national, regional and global) mainstream markets. Scaling up green MSMEs should also be supported at this level.

Macro level interventions should target the framework, such as laws, regulations, taxes and incentives – while always assessing the gendered impact these might have. Efforts should be made to stimulate

209 See OECD 2011c.

210 World Bank 2011: XIII

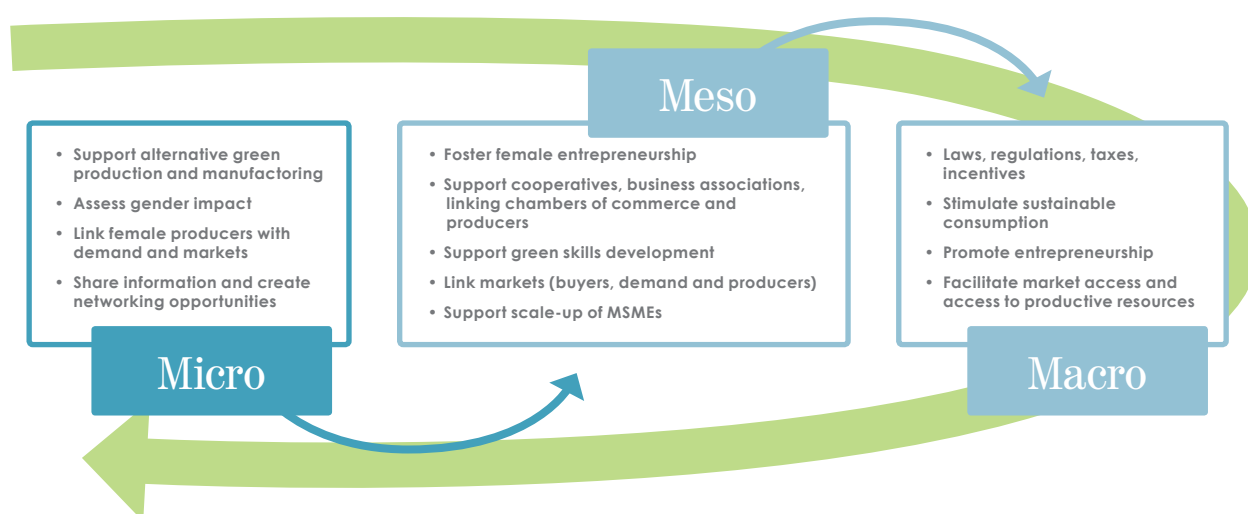


Figure 8: Multi-level approach of green gender-sensitive private sector development

SOURCE: AUTHORS

sustainable production and consumption pattern both in industrialised and developing countries. Furthermore, female entrepreneurship in particular should be promoted and the access to markets should be legislated for.

### Multi-stakeholder approaches

A variety of actors at many levels have a role to play in the transition to a green(er) economy and to ensuring equal benefits for women and men. This is the joint responsibility of governments, the private sector, producers and consumers as well as development institutions and civil society. The green economy poses the fundamental challenge to all public institutions and other relevant stakeholders of converging, aligning and integrating work across the social, environmental and economic dimensions of the green economy. Governments have to design gender-sensitive green policies and allocate human and financial resources; the private sector has to invest in innovation and the transformation while at the same time not neglecting social responsibilities. Creating Shared Value (CSV), a new business concept based on the idea that economic value can be generated through the creation of societal value, can importantly contribute to the transition to the green economy. It recognises the role of societal needs, including a healthy environment and working conditions, as opportunities for markets and business.<sup>211</sup> Large corporations apply CSV increasingly, e.g., by supporting clusters of (local) suppliers and investing in green solutions for business and societies.<sup>212</sup> Civil society organisations can increase public awareness on the issues and serve as watchdogs.

### Local and participatory approaches

Approaches should be based on local solutions as these have proven to be most effective and can often be replicated.<sup>213</sup> Such solutions should be based on gender-sensitive assessments and be developed in participatory approaches in order to create ownership and avoid negative side effects of the transition to the green economy.<sup>214</sup> Such assessments and approaches should build upon the experiences many development agencies and governmental as well as civil society organisations have with community and participatory dialogue.

### Gender equality in green PSD

Employing a gender approach in green PSD implies focusing on the structural causes of discrimination based on sex. It means constantly identifying and understanding the different roles and entitlements of women and men, and the specific challenges faced by particular disadvantaged groups. Existing imbalances between those who *do the work* and those who *control the benefits* must be addressed at household, community, national and international level. Interventions that do not take into consideration the differing needs of men and women and their social, economic, and cultural realities during all phases of the project cycle run the risk of being ineffective, inefficient and unsustainable.

Integrating a gender perspective into (green) PSD initiatives implies a thorough gender analysis of the framework conditions and diverse realities, needs and interests of women and men, prior to any intervention. Gender equality and the principle of non-

<sup>211</sup> See Porter/Kramer 2011.

<sup>212</sup> For more see [www.fsg.org](http://www.fsg.org)

<sup>213</sup> See OECD 2011c.

<sup>214</sup> One example of a process combining a participatory and multi-stakeholder approach with value chain analysis is the Gender Equitable Value chain Action Learning – GEVCAL. It is outlined with a number of relevant tools and checklists in detail in Mayoux/Mackie 2008.

discrimination as human rights must then be incorporated and monitored throughout all activities and strategies. Gender dimensions should also be reflected in corresponding success indicators. Furthermore, monitoring must consider the positive and negative impact made on gender equality. If necessary, adjustments must be made to avoid any negative impact on gender equality.

Concretely, in order to foster women's participation and gender equality, it is important to apply a gender perspective to business development and investment climate assessments and to policies, action plans and strategies for green enterprise development, green growth and poverty reduction and to tailor them to be gender responsive.

Integrating a gender perspective in order to enhance women's participation does not mean working only with women.<sup>215</sup> Quite the contrary. As gender is a relational concept and stresses the interdependence of roles, transformation of (power) relations will only be sustainable if both men and women are addressed and understand the benefits of the transformation. It should be kept in mind that different groups of women and men might have different strategic interests and practical needs. As illustrated above, different approaches are required for different target groups.

## 4.5 Summary:

### Potentials and risks for women's participation in the green economy

Chapter 4 assesses potential benefits and risks for women's participation in the green economy.

The role women can play as change agents in the transition from the brown to the green economy is clearly a potential benefit. Globalisation, in particular new communication technologies, can support this role. The transition to a greener economy can – but does not automatically – lead to health standards and improved working conditions. Key to effective and gender-just approaches and policies is a profound and context-specific gender analysis.

Negative social implications can also result, e.g. job losses or limited access to markets due to regulations, standards and price pressure, which often affect producers more than other actors in the value chain. Such harm, potentially caused by the transition, must be avoided through corresponding policies and interventions. It must also be considered that increased women's in the green economy does not automatically imply larger access to and control over resources at household or community level. Men need to be included in measures directed at transforming discriminating gender patterns.

Approaches in addressing these issues should include:

- Multi-level approaches
- Multi-stakeholder approaches
- Local and participatory approaches.

<sup>215</sup> However, the central focus assessed in the present study revolved around women's participation in the green economy.

# 5

## Recommendations

Enhancing and promoting gender equality and women's participation in green growth and a green economy will require a multi-stakeholder approach that cuts across different sectors, addresses different levels and takes into account different contexts and cultures. Based on the findings of this study, the following recommendations have therefore been designed for a set of actors to advance women's participation in green growth. Relevant actors to be engaged in a multi-stakeholder and multi-level approach, include development practitioners, policy makers, private sector enterprises, research institutions and academia and civil society organisations.

### 5.1 International development institutions

The donor community and international organisations have an important role to play in supporting gender equality and women's participation in green growth. Interventions in green growth and PSD always need to take into account existing gender inequalities, barriers and opportunities in the different contexts and countries. Development actors can play a vital role in fostering collaboration between different stakeholders, e.g. through tripartite arrangements to create or adapt new curricula for green professions. Linking markets and producers, fostering green CSR, public-private partnerships (PPP) and CSV in participatory processes are important approaches. Donors should also address the potential harm caused by the transition to a green economy, e.g. through retraining of workers and close consultation with affected communities. To support the transition to a green economy, donors need to consider the following:

#### Policy support

- Further engage and enrich the international policy dialogue with inclusive research, up-to-date examples of various areas and levels as well as corresponding indicators to support the further development of a green economy oriented towards inclusiveness, gender equality and poverty alleviation;
- Support the development and implementation of innovative strategies, new legislation and policies aimed at the enhancement of women's participation in the green economy and the implementation of pilot programmes. Where applicable, facilitate mutual exchange and learning, e.g. South-South initiatives;
- Support the collection of sex-disaggregated data, for example in national statistics offices, including data at household level, as a basis for gender-responsive planning, implementation, research, monitoring and evaluation;
- Support gender-sensitive green growth policies such as environmental taxation, norms and regulations, and set incentives for the use of green technologies, green production and manufacturing.

#### Capacity development

- Support capacity building for governments (e.g. regarding gender-sensitive statistics and sex-disaggregated data, gender analysis, multi-dimensional and cross-sectoral gender sensitive planning and budgeting for a green economy, e.g. labour and environment);
- Provide training and advisory services to female green entrepreneurs, workers and women's organisations (e.g. business and management skills, start-up and product marketing) and to scale-up micro businesses into small and medium green enterprises;
- Provide support for monitoring and evaluation of the gender impact of (green) business reform projects, related laws, policies and programmes, including consultation with local stakeholders;
- Strengthen the skills of civil society in the area of green growth (policy design, law making processes, green business development, value chain development and monitoring).

### PSD

- Design PSD initiatives with a sound greening, pro-poor and gender perspective, including gender-sensitive value chains for green MSMEs, PPP, CSR and CSV;
- Research and disseminate trends about demand, innovations and trade opportunities for green products, production, processing, manufacturing methods and technology;
- Promote and establish networks of female green entrepreneurs and their integration into other relevant structures such as cooperatives, business associations, likewise ensuring female participation at decision-making level;
- Promote environmental and social standards;
- Provide linkages to markets, particularly for female producers and vendors and support match-making between buyers and producers;
- Recognise and value the contribution of women's unpaid work to the economy and promote awareness and change of attitudes and behaviour for just distribution of care work between men and women.

### Consumption

- Ensure green procurement (green products and equipment) and set an example;
- Promote sustainable consumption patterns, e.g. through information on production processes and implications for the environment, women and the poor to consumers in developed, emerging and developing countries, focusing on alternatives.

## 5.2 Governments and policy makers

Policy makers can significantly promote gender equality in green growth through policies and incentives for green businesses. An emphasis on gender equality is crucial in the design of green policies and strategies, incorporating gender perspectives across sectors, in the promotion of innovation and access to finance, markets, equipment and business opportunities. This applies to both developed and developing countries. In fact, the shift towards a green economy requires a new approach towards economic growth, reflecting associated (environmental) costs in taxes and fees, in production and consumption. It also requires governments to minimise the maladaptation risks of the transition and support affected communities. Following prevailing consumption patterns and taking into account environmental impacts from the production of goods consumed mainly in the developed world, industrialised countries have a special role and responsibility in advancing an inclusive green economy. The key entry points for governments are as follows:

### Policies and laws

- Mainstream gender perspectives in respective international and national greening and macroeconomic policies and programmes and review policies to create an enabling business environment for women, e.g. non-discriminatory land and property laws as well as anti-discrimination laws;
- Incorporate environmental assets and services into national and corporate accounts (green accounting) while at the same time mainstreaming gender into national and particularly relevant sector budgets (gender-responsive budgeting);
- Provide incentives for women's green skills development and jobs, such as carefully designed quota-systems and targeted investments that help reduce wage gaps and gender-based job segmentation in the green economy;
- Revise the regulatory and legal framework to remove gender biases (e.g. access to land and property) and include incentives and structures and/or programmes to support the start-up, formalisation and growth of women-owned (green) enterprises;
- Assess and monitor the gender-specific impact of legislation, e.g. consult with communities, in particular women and women's organisations, about their needs and the impact of policies and programmes.

### Capacity development

- Foster transnational learning processes on new greening measures and experiences with new green technology, specifically with emerging countries;
- Promote equal opportunities for women and men in educational programmes (e.g. school curricula) and capacity-building measures and promote role models for atypical study and job choices according to the skills needed for green growth;
- Support alternative skills development and apprenticeship schemes for women in emerging green labour markets;
- Minimise loss of jobs through the transition to a green economy, e.g. through retraining and adaptation of workers' skills;



### Labour market

- Collect, analyse and disseminate sex-disaggregated labour data, including emerging new (green) sectors and skills areas as a basis for gender-responsive planning, monitoring and evaluation and skills assessments;
- Disseminate gender specific information on green jobs and how to get involved;
- Enforce compliance with existing (labour and health) standards and rights, including establishment of grievance mechanisms to ensure that green jobs are decent jobs;
- Provide sufficient and improved family-friendly services, e.g. child care facilities, to ensure equal opportunities for women and access to work.

### Business environment

- Promote green innovation and support knowledge transfer between industrialised, emerging and developing countries;
- Create an environment that enhances equal economic opportunities for women by removing legal, administrative and financial barriers for women and promoting women's access to and control over productive resources, services and markets;
- Promote environmentally-friendly and gender-sensitive social production standards, environmental management and compliance systems;
- Support research and development for new green production, processing and manufacturing processes and (national, regional and global) trade opportunities;
- Provide adequate funding mechanisms and increase women's access to (climate change) finance mechanisms beyond microcredit schemes;
- Engage in public private partnerships addressing women's needs and promoting decent work.

### Consumption

- Build on female consumption preferences and provide incentives for sustainable consumption, e.g. through levies and taxes.
- Provide incentives for procurement of green equipment, technology and consumables in business and government through regulations and tax relief.

## 5.3 Private sector

The private sector, driving innovation in business, is a key player in the transition to the green economy and for ensuring and achieving gender equality. New business opportunities, higher prices for commodities as well as the obligation to comply with rules and regulation are incentives for the private sector to engage in the transition towards a greener economy. However, these need to be realised in accord with the economic, environmental and social dimensions inherent in the broader definition of the green economy. Private sector enterprises and their trade associations, chambers of commerce, workers' representatives etc. will contribute to enhanced gender equality in a green economy by taking into account the following:

### Initiatives to foster gender equality in business

- Promote the advancement of women to decision-making positions in private enterprises and their representing institutions, including chambers, unions and interest groups;
- Promote CSR and implement CSR programmes, supporting women green entrepreneurs in particular;
- Create synergies, strategic alliances and green supply chains between large corporations and (female) MSMEs, e.g. as part of a CSV approach;
- Invest in market analysis, new green technologies and green jobs, saving water and energy and using green transport technology;

### Labour market

- Ensure decent working conditions (including zero tolerance policies and corresponding measures against gender-based violence) and equal participation of women at all ranks and levels;
- Close the gender pay gap;
- Foster family-friendly working conditions, e.g. flexible working arrangements concerning time and place of work;
- Facilitate just transition for workers in the transition to a green economy, e.g. through retraining measures;

### Capacity development

- Anticipate skill needs in close collaboration with government, workers' representatives and education and training providers;
- Provide training and mentoring for women entrepreneurs to increase 'functional literacy';
- Provide internship and apprenticeship opportunities for women;
- Support and/or recognise alternative educational/technical training opportunities (without the need for school certificates) for newly emerging (technical) professions.

### Consumption

- Provide information on the sources of commodities, production and manufacturing methods, processes and conditions.

## 5.4 Research institutions and academia

Research institutions need to support governments, the private sector, development institutions and the general public with research and analyses related to gender equality in the green economy. Through the design and implementation of relevant courses and programmes, educational institutions can drive the skills needed for women to participate equally in a green economy. The following measures will support women's participation in green growth:

- Gather sex-disaggregated data and gender analyses in key sectors such as agriculture, forestry, fishery, energy and water to identify obstacles and potentials for women's participation and engage in cost-benefit analyses for the transition towards a greener economy;
- Research differentiated socio-economic impacts on women and men from greening practices in order to mitigate risks and develop effective strategies;
- Research viability and gender equality impacts of pooling of finances and assets and community equipment for the green economy;
- Foster the admission of women in more technical fields of study and support the establishment of technical training for newly emerging skills needed and promote women's participation;
- Integrate practical work experience in green sectors into the curriculum (work placement, work shadowing, school-based enterprises);
- Promote networks and exchange amongst researchers and practitioners in order to identify and disseminate promising practices, lessons learned and successful role models;
- Closely collaborate with government and private sector to disseminate knowledge and identify research needs related to green growth and gender.

## 5.5 Civil society

Civil society and non-governmental organisations play a critical role in promoting (green) economic empowerment of women through the following:

- Support social dialogue in lobbying and advocacy for policy change to ensure women's full economic participation in green growth;
- Identify and address gender-discriminatory areas in national, local and customary law and procedures;
- Advocate on issues affecting women's land and property rights, thereby fostering an enabling environment for women;
- Improve women's access to information, especially at local level and in rural communities, e.g. through awareness and educational programmes and adequate modes of information (e.g. mobile phone services);
- Build and strengthen member-based organisations and networks and the inclusion of women in (women's) entrepreneurial associations, unions and savings societies;
- Lobby for the representation of women entrepreneurs in green business networks and decision-making bodies;
- Monitor the gender implications of new policies, regulations and programmes in the green economy.



# Annex

## Value chain mapping I:

### Gendered participation and potential for greening in cotton production

This value chain mapping is based on principles of Mayoux/Mackie 2008. It presents a preliminary analysis with secondary but no primary field data for the various nodes. Its purpose is to draw attention to the fact that gender and potentials for the green economy can and should be analysed within value chains.

Such a mapping, undertaken as an exercise with different stakeholders, offers valuable insights into a number of aspects in the process: it can help explain the (underlying) gender-dimensions and interrelations within the value chain and its various nodes in the mapping process, based on relevant questions. It also facilitates the identification of entry-points and definition of economic opportunities as well as blockages, relevant for important strategy and PSD decisions.

The guide *Making the strongest links. A practical guide to mainstreaming gender analysis in value chain development* by Linda Mayoux and Grania Mackie (ILO, 2008) details how to design such mapping processes.

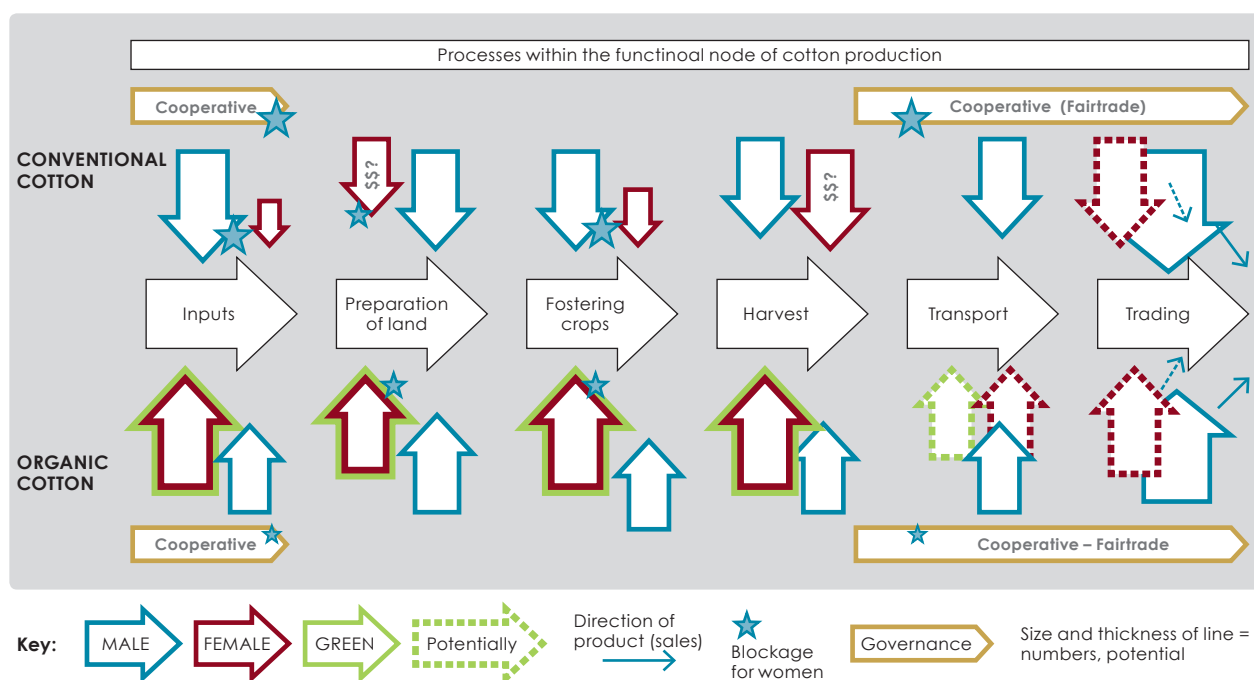


Figure 9: Gendered participation and potential for greening in cotton production

SOURCE: AUTHORS, MAPPING METHOD FOLLOWS MAYOUX/MACKIE 2008

PLEASE NOTE THAT THIS MAPPING IS BEST WHEN PRINTED OR VIEWED IN COLOUR.

## Summary:

- Organic cotton holds potential for both greening and increased women's participation at production level (thick green and red arrows).
- Potential blockages (marked with stars) at preparation of land and fostering crops relate to time, auxiliary and transport means (as explained in chapter 3).
- If women do not grow/own the cash-crop (conventional cotton), they still work as unpaid labour but usually do not control the resources in the end (see: \$\$\$). If women grow the cash-crops themselves, possible with organic cotton, they are more likely to control their income from it.
- Blockages exist for women at the level of participation in cooperatives or other (management) structures (governance). Smaller stars represent the fact that organic and Fairtrade certification usually establish requirements for female participation at cooperative and management level (Fairtrade might therefore also increase female representation in conventional cotton).
- Women's participation in the area of trading is a potential that is not related to greening but rather to skills and restricted flexibility of movement (dotted red arrows).

## Value chain mapping II:

### Gendered participation and greening in tourism in Bahia, Brazil

This value chain mapping is based on principles of Mayoux/Mackie 2008. It presents a preliminary analysis with secondary but no primary field data for the different nodes. Its purpose is to draw attention to the fact that gender and potentials for the green economy can and should be analysed within value chains.

Such a mapping, undertaken as an exercise with different stakeholders, offers valuable insights into a number of aspects in the process: it can help un-

derstand the (underlying) gender-dimensions and interrelations within the value chain and its different nodes in the mapping process, based on relevant questions. It also facilitates the identification of entry-points and definition of economic opportunities as well as blockages, relevant for important strategy and PSD decisions.

The guide *Making the strongest links. A practical guide to mainstreaming gender analysis in value chain development* by Linda Mayoux and Grania Mackie (ILO, 2008) details how to design such mapping processes.

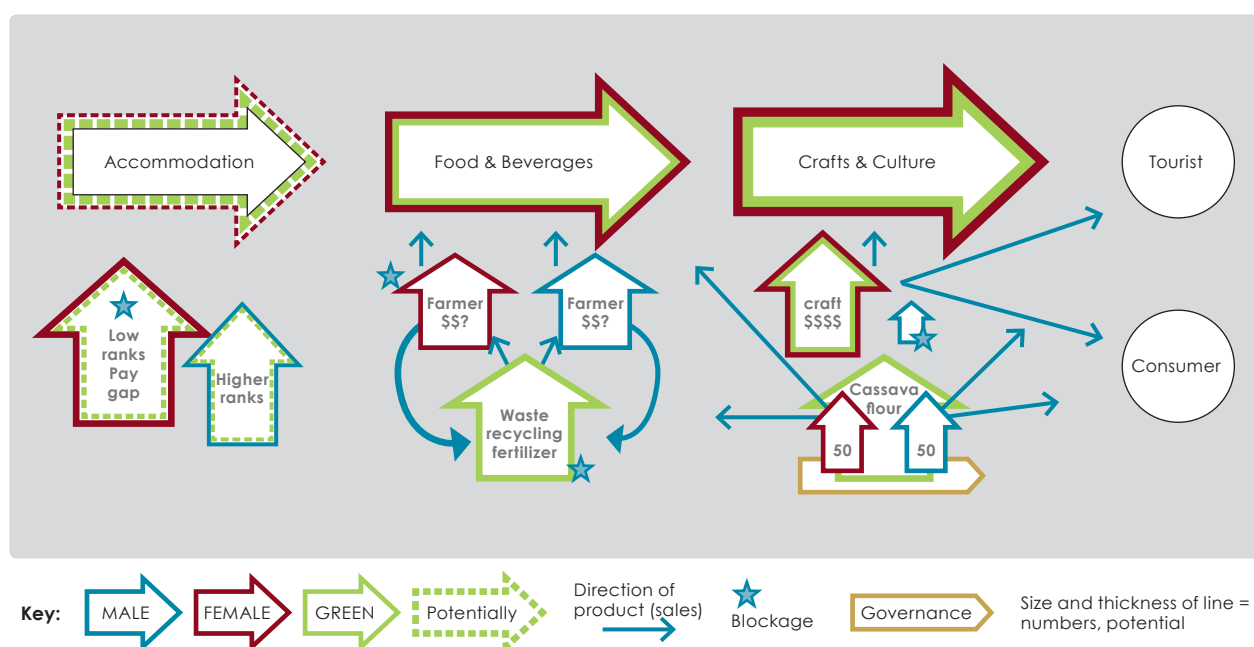


Figure 10: Gendered participation and greening in Bahia, Brazil

SOURCE: AUTHORS, MAPPING METHOD AFTER MAYOUX/MACKIE 2008

PLEASE NOTE THAT THIS MAPPING IS BEST WHEN PRINTED OR VIEWED IN COLOUR.

## Summary:

- Tourism holds large potential for greening and women's participation in the food and beverage and crafts supply chains (thick lines).
- Accommodation has greening and women's participation potential, but currently represents a blockage (star) for women, as they mostly work at lower skills level, earning less than men.
- Waste recycling represents enormous greening potential in tourism. Creating a wet waste virtuous recycling cycle that provides fertiliser to local farmers – who in turn supply tourism establishments with agricultural produce – benefits the local economy and women. A blockage (star and \$\$?) might exist for women to control the income from farming.
- Crafts and culture offer huge potential for women, where the blockage for men (in the Bahia case) lies in their low participation in crafts skills. The production, marketing and sale (including export) of (green) bags create considerable income for women (\$\$\$\$).
- The green cassava flourmill benefits both men and women through an equal governance structure, sells cassava flour and produce and is a cultural tourist attraction (income). The mapping also shows, that the produce (as a benefit) goes in a number of directions (to the consumer, to the tourist and back into the food and beverages supply chain).



# Bibliography

## Applied Research Centre (2009):

Green Equity Toolkit. Standards and Strategies for Advancing Race, Gender and Economic Equity in the Green Economy. Oakland.

**Association for the Protection of the Environment (APE):** [www.ape.org.eg](http://www.ape.org.eg), retrieved 12.02.2012.

## Bachmann, Felicitas (CDE) (2010):

Impact Assessment – Organic Cotton in Jalalabad Oblast, Kyrgyzstan. Helvetas, CDE, University of Bern.

## Barefoot College:

[www.barefootcollege.org](http://www.barefootcollege.org), retrieved 12.02.2012.

## Bassett, Thomas (2002): Women's

Cotton and the Spaces of Gender Politics in Northern Cote d'Ivoire. In: CGPC 9 (4), S. 351–370.

## Bassett, Thomas (2010):

Slim pickings: Fairtrade cotton in West Africa. In: Geoforum 41 (1), pp. 44–55.

**Beruf und Familie:** [www.beruf-und-familie.de](http://www.beruf-und-familie.de), retrieved 12.02.2012.

## Blackden, C. Mark/Bhanu, Chitra

(1999): Gender, Growth and Poverty Reduction, World Bank Technical Paper 428. Washington D.C.

**BMZ (2011):** Green Economy. Bonn.

## Bowen, Alex (2011): Green Growth,

Green Jobs and Labour Markets. Report prepared for the World Bank.

**Cnn.com (2011):** Reducing Carbon Emissions in the UEA (Road to Rio).

## DAC GENDERNET (2011): Women's

Economic Empowerment. Issues paper. Available online at [www.oecd.org/social/genderequality-anddevelopment/47561694.pdf](http://www.oecd.org/social/genderequality-anddevelopment/47561694.pdf), retrieved 12.01.2012.

## DCED (2009): Supporting Business

Environment Reforms and the Informal Economy. Discussion Paper.

## Diaz, David Benavides (2001):

The Viability and Sustainability of International Tourism in Developing Countries. UNCTAD, Geneva.

## Dube, Kamalesh J./Ingale, Lalit T./

Ingale, Sopan T. (2011): Hearing Impairment among Workers Exposed to Excessive Levels of Noise in Ginning Industries. In: Noise Health (13), pp. 348–355. Available online at [www.noiseandhealth.org/article.asp?issn=1463-1741;year=2011;volume=13;issue=54;epage=348;epage=355;aulast=Dube](http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=2011;volume=13;issue=54;epage=348;epage=355;aulast=Dube), retrieved 07.02.2012.

**Egypt at Work:** [www.egypt-at-work.org](http://www.egypt-at-work.org), retrieved 04.03.2012.

## Ellis, Amanda/Coutura, Jozefina

(2007): Doing Business Report 2008. Findings on Gender-Specific Issues. In: Enterprise development. African and Global Lessons for more Effective Donor Practices from a Women's Perspective. Conference documentation. Accra/Eschborn.

## European Commission (2009):

Gender segregation in the labour market. Root causes, implications and policy responses in the EU. Brussels.

## European Commission (2011):

A Roadmap for moving to a competitive low-carbon economy in 2050. Brussels.

## Eyhorn, Frank/Ramakrishnan,

Mahesh/Mäder, Paul (2007): The viability of cotton-based organic farming systems in India. In: International Journal of Agricultural Sustainability (5(1)), pp. 25–38.

## Fairtrade International (2011):

Challenge and Opportunity. Supplement to Annual Review 2010–11, 2010 Financials and Global Sales Figures. Bonn.

## Fairtrade Labelling Organisations –

FLO: [www.fairtrade.net](http://www.fairtrade.net), and [www.fairtrade.net/facts\\_and\\_figures.html](http://www.fairtrade.net/facts_and_figures.html) retrieved 28.01.2012

## FAO (2008): Gender and Equity

Issues in Liquid Biofuels Production. Minimising the Risks to Maximise the Opportunities. Rome.

## FAO (2011): The State of Food and

Agriculture. Women in Agriculture. Closing the Gender Gap for Development. Rome.

## GEM (2012): Global

Entrepreneurship Monitor. 2011 Global Report. Place unknown.

## Ghertner, D. Asher/Fripp, Matthias

(2007): Trading Away Damage: Quantifying Environmental Leakage through Consumption-based, Life Cycle Analysis. In: Ecological Economics 63 (2–3), pp. 563–577.

**GIZ (2011):** Promotion of Social and Environmental Standards in the Industry. Environmental Component. Overview. GIZ. Dhaka.

## GIZ (2011a): Thesenpapier.

Ökonomien im Wandel: Nachhaltigkeit als Treiber für wirtschaftliche Transformation, Eschborn.

## GIZ (2012): Progress Report

ComVoMujer. Internal Document. Lima.

## Global Compact/UNEP/OXFAM/

## World resource Institute (2011):

Adapting for a Green Economy. Companies, Communities and Climate Change. A Caring for Climate Report.

## Global Footprint Network:

[www.footprintnetwork.org](http://www.footprintnetwork.org), retrieved 01.02.2012.

## Grameen Shakti: [www.gshakti.org](http://www.gshakti.org),

retrieved 01.03.2012.

## GTZ (2000): Gender and Project

Management. Eschborn.

## GTZ (2007): Enterprise Development.

African and Global Lessons for more Effective Donor Practices from a Women's Perspective. Conference Documentation. Accra/Eschborn.

## GTZ (2010a): The Governance

Cluster. Climate Change and Gender: Economic Empowerment of Women through Climate Mitigation and Adaptation? Working Paper. Eschborn.

## GTZ (2010b): How the Business of

Energy-efficient Biomass Stoves Contributes to Green Economy. Eschborn.

## GTZ (2010c): Green Growth.

Discussion Paper. Eschborn.

## Hammer, Jutta/Baier, Alexandra

(n.d.): Cotton is a Male Domain? Not in Organic Cultivation. Pestizid Aktions-Netzwerk e.V. (PAN Germany).

**Hilton, Anne (2007):** Access to Finance. In: Enterprise development. African and global lessons for more effective donor practices from a women's perspective. Conference documentation. Accra/Eschborn.

**ILO (2009):** Green jobs: Improving the climate for gender equality too. New York.

**ILO (2010):** Skills for green jobs in South Africa. Unedited background country study. Geneva.

**ILO (2011a):** Skills for Green Jobs. A Global View. Synthesis Report based on 21 Country Studies. Geneva.

**ILO (2011b):** Identifying Gender issues and Mainstreaming Gender in the Green Jobs Programme. Draft. Geneva.

**ILO (2011c):** Investment in renewable energy generates jobs. Supply of skilled workforce needs to catch up. Research brief.

**ILO (2011d):** Promoting Decent Work in a Green Economy. ILO Background Note to Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication, UNEP 2011.

**ILO (2011e):** Poverty reduction through tourism. Sectoral Activities Programme. Geneva.

**Institute for Transportation and Development Policy:** [www.itdp.org/news/ahmedabad-wins-2010-sustainable-transport-award](http://www.itdp.org/news/ahmedabad-wins-2010-sustainable-transport-award), retrieved 15.01.2012.

**ITC – Women and Trade Programme:** [www.intracen.org/projects/women-and-trade](http://www.intracen.org/projects/women-and-trade), retrieved 31.01.2012.

**ITC (2009):** EPRP/SC Impact Measurement Tool, Geneva.

**ITC (2010):** Tourism-led Poverty Reduction Programme. Poverty reduction through Inclusive Tourism. Presentation, January 2010, London.

**ITC (2011):** Aid for Trade & the Private Sector, International Trade Forum Magazine, Issue No. 4. Geneva.

**ITC (2011a):** The Ethical Fashion Programme. Not charity, just work. 2011 Aid for Trade Global Review: Case story.

**ITC (n.d.):** Inclusive Tourism In North-East Brazil Welcomes Poverty Reduction To The Coconut Coast, Geneva.

**Johnsson-Latham, Gerd:** A study on gender equality as a prerequisite for sustainable development. What we know about the extent to which women globally live in a more sustainable way than men, leave a smaller ecological footprint and cause less climate change. The Environment Advisory Council. Stockholm.

**Kelley, Donna / Brush, Candida / Greene, Patricia / Litovsky, Yana (2011):** Global Entrepreneurship Monitor. 2010 Women's Report.

**Kinkingninhoun-Médagbé, Florent / Diagne, Aliou / Simtowe, Franklin / Agboh-Noameshie, Afiavi / Adégbola, Patrice (2010):** Gender Discrimination and its Impact on Income, Productivity, and Technical Efficiency: Evidence from Benin. In: Agric Hum Values 27 (1), pp. 57–69.

**Kirkpatrick, Colin / Lawson, David (2004):** Uganda Regulatory Cost Survey Report. Manchester.

**Mackie, Grania (2007):** Female employers and entrepreneurs. In: Enterprise development. African and global lessons for more effective donor practices from a women's perspective. Conference documentation. Accra/Eschborn.

**Makower, Joel:** Colour It Green: Nike to Adopt Waterless Textile Dyeing. GreenBiz.com. Available online at [www.greenbiz.com/blog/2012/02/07/color-it-green-nike-adopt-waterless-textile-dyeing](http://www.greenbiz.com/blog/2012/02/07/color-it-green-nike-adopt-waterless-textile-dyeing), retrieved 24.02.2012.

**Mayoux, Linda / Mackie, Grania (2008):** Making the Strongest Links. A Practical Guide to Mainstreaming Gender Analysis in Value Chain Development. ILO.

**Mayoux, Linda (2009):** Special Report: The Power of Value Chains. Engendering benefits for all, [www.thebrokeronline.eu/Special-Reports/Special-report-The-power-of-value-chains/Engendering-benefits-for-all](http://www.thebrokeronline.eu/Special-Reports/Special-report-The-power-of-value-chains/Engendering-benefits-for-all), retrieved 14.01.2012.

**Mitchell, Jonathan / Ashley, Caroline (2009):** Value Chain Analysis and Poverty Reduction at Scale. Evidence from Tourism Is Shifting Mindsets. In ODI Briefing Paper (49).

**Mitchell, Jonathan / Coles, Christopher (2011):** Markets and Rural Poverty. Upgrading in Value Chains. London.

**OECD (2006):** Policy brief: The Social Dimension of Environmental Policy. Paris.

**OECD (2008):** Gender and Sustainable Development. Maximising the Economic, Social and Environmental Role of Women. Paris.

**OECD (2008a):** OECD Employment Outlook 2008. Paris.

**OECD (2011a):** Towards Green Growth – Monitoring Progress. OECD Indicators. Paris.

**OECD (2011b):** Green Growth Studies – Energy. Paris.

**OECD (2011c):** OECD Green Growth and Development Workshop. Summary and Key Messages. Paris.

**OECD (2011d):** Towards Green Growth. Paris.

**Okalebo, Jane / Hankins, Mark (1997):** Why Women Adopt Solar Dryers, ENERGIA News 3 (July).

**Organiccotton:** [www.organiccotton.org](http://www.organiccotton.org), a joint ICCO, SECO, HELVETAS project, retrieved 01.02.2012.

**Oxfam (2008):** Cultivating Poverty. The Impact of US Cotton Subsidies on Africa. In: Oxfam briefing paper 30.

**Pineau, Mathias (CDE) (2009):** Etude d'impact du programme coton bio et équitable d'Helvetas au Burkina Faso. Campagne 2008/2009. Helvetas; CDE, University Bern.

**Porter, Michael / Kramer, Mark (2011):** How to Fix Capitalism and Unleash a New Wave of Growth. In: Harvard Business Review, January–February 2011.

**PRWeb.com (2011):** Global Organic Cotton Market Grows 20%, Hits \$5.61 Billion in 2010. Available online at [www.prweb.com/pdfdownload/8770173.pdf](http://www.prweb.com/pdfdownload/8770173.pdf), updated on 06.09.2011, retrieved 13.01.2012.

**Quisumbing, Agnes / Pandolfelli, Lauren (2009):** Promising Approaches to Address the Needs of Poor Female Farmers. Resources, Constraints, and Interventions. International Food Policy Research Institute (IFPRI) Discussion Paper.

**Renewable Energy Geek (2012):** Solar Panels Exposed: Is Your Health Seriously Being damaged Because of Renewable Energy? [www.renewableenergygeek.ca/solar-power/solar-panels-health-warning-hazzard](http://www.renewableenergygeek.ca/solar-power/solar-panels-health-warning-hazzard), retrieved 19.05.2012.

**Robinson, Mary (2011):** Why Women Are World's Best Climate Change Defence. Cnn.com.

**SNV (2009):** The Market for Responsible Tourism Products. SNV Netherlands Development Organisation. Amsterdam.

**Tandon, Nidhi (2012):** Empowerment of women in a Green Economy in the context of sustainable development and poverty eradication. The Case for Community-based, Gender-equitable and Human rights based Green Economic Development. UN Women paper for Rio+20 and the Green Economy. Toronto.

**Textile Exchange (various years):** Global Market Report on Sustainable Textiles.

**Textile Exchange (2011a):** 2010 Global Market Report on Sustainable Textiles: Executive Summary.

**Textile Exchange (2011b):** 2010 Farm & Fibre Report. Organic by Choice.

**The National State of the Environment Report:** [www.ngo.grida.no/soesa/nsoer/issues/politic/index.htm](http://www.ngo.grida.no/soesa/nsoer/issues/politic/index.htm), retrieved 19.05.2012

**The World Bank (1999):** Can anyone hear us? Voices from 47 countries. Washington D.C.

**The World Bank (2001):** Gender and Growth: Africa's Missed Potential. Washington D.C.

**The World Bank (2007):** Gender Equality as Smart Economics. Action Plan 2007–2011. Washington D.C.

**The World Bank (2010):** World Development Report 2010. Development and Climate Change. Washington D.C.

**The World Bank (2011a):** South Africa Economic Update. Focus on Green Growth. Washington D.C.

**The World Bank (2011b):** World Development Report 2012. Gender Equality and Development. Washington D.C.

**The World Bank (2012):** Inclusive Green growth. The Pathway to Sustainable Development. Washington D.C.

**The World Bank East Asia & Pacific (2010):** Vietnam's Land Law Raises Status, Income and Security for Wives. Available online at [www.worldbank.org/en/news/2010/03/24/vietnam-land-law-raises-status-income-and-security-for-wives](http://www.worldbank.org/en/news/2010/03/24/vietnam-land-law-raises-status-income-and-security-for-wives), retrieved 24.02.2012.

**The World Bank / International Finance Corporation (2008):** Doing Business 2008. Washington D.C.

**UNCTAD INFO COMM, Market Information in the Commodities Area:** <http://unctad.org/infocomm/anglais/cotton/chain.htm#bu>, retrieved 04.01.2012.

**UNDP (2008):** Human Development Report 2007/2008. Fighting climate change. Human solidarity in a divided world. New York.

**UNDP (2010):** Cotton Scoping Paper. Green Commodities Facility. New York.

**UNDP (2011):** Human Development Report 2011. Sustainability and Equity: A Better Future for All. New York.

**UNEMG (2011):** Working towards a Balanced and Inclusive Green Economy: A United Nations System-wide Perspective. Geneva.

**UNEP (2008):** UNEP Background Paper on Green Jobs. Geneva.

**UNEP (2011a):** Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers.

**UNEP / ILO / IOE / ITUC (2008):** Green Jobs: Towards decent work in a sustainable, low-carbon world. Policy messages and main findings for decision makers. New York.

**UNEP / UNWTO (2011):** Tourism. Investing in energy and resource efficiency. In: UNEP (2011): Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication, p. 413–451.

**UNIDO:** [www.unido.org](http://www.unido.org), retrieved 01.03.2012

**UNPAC:** [www.unpac.ca](http://www.unpac.ca), retrieved 15.02.2012

**UNWTO (2011):** Tourism and Climate Change. Factsheet. Madrid.

**UNWTO / UN Women (2011):** Global Report on Women in Tourism 2010. Preliminary Findings. Madrid, New York.

**USAID:** Success-Story. Women to Women: Organic cotton growers in Burkina Faso partner with Victoria's Secret. Washington D.C.

**Wichterich, Christa (2011):** Zwischen MDGs und Green Economy. Eine Gender-Perspektive auf Wachstumsdiskurse und Wohlstandsmodelle. WIDE – Women in Development Europe. Bonn.

**World Travel & Tourism Council (WTTC) (2011):** Economic Impact of Travel & Tourism. Update November 2011.

**Zafalon, Mauro (2007):** Preço sobe, e plantio de soja beira record. Folha de São Paulo, B10, 24 July. São Paulo.

## List of experts interviewed and consulted

|   |   |
|---|---|
| <b>Baur, Michaela</b>                                 | GIZ, Vocational Training and Labour Market, Germany   |
| <b>Blomstrom, Eleanor</b>                             | Women's Environment and Development Organisation (WEDO), USA  |
| <b>Brendel, Christine</b>                             | GIZ, Combating Violence Against Women in Latin America (ComVoMujer), Peru                                       |
| <b>Carnahan, Meagan</b>                               | Barefoot College, India   |
| <b>Doumbia, Siaka</b>                                 | HELVETAS, Mali  |
| <b>Dueñas, Alfredo</b>                                | Fundación Conservación y Desarrollo, Ecuador  |
| <b>Eyhorn, Frank</b>                                  | HELVETAS Swiss Intercooperation, Rural Economy / Organic and Fair Trade Competence Centre (OFTCC), Switzerland  |
| <b>Gagli, Malati</b>                                  | SWaCH (Seva Sahakari Sanstha Maryadit), India   |
| <b>Greiss, Suzie</b>                                  | Association for the Protection of the Environment (APE), Egypt  |
| <b>Hampel Milagrosa, Aimee</b>                        | German Development Institute (GDI-DIE), Germany   |
| <b>Harrison, Glynis</b>                               | GIZ, Skills Development for Climate and Environment Business, South Africa                                      |
| <b>Laven, Anna<br/>Pyburn, Rhiannon</b>               | KIT Development Policy & Practice Sustainable Economic Development, Netherlands                                 |
| <b>Leclercq, Fabrice<br/>Frauenrath, Marie-Claude</b> | ITC, Tourism-led Poverty Reduction Programme, Geneva  |
| <b>Mackie, Grania</b>                                 | ILO, WEDGE SA, South Africa   |
| <b>Mueller, Susanne Maria</b>                         | SWITCH Asia, Germany  |
| <b>Oliveira, Francisco</b>                            | Instituto Imbassaí, Brazil  |
| <b>Puri, Jyotsna</b>                                  | UNEP, Chief, Economics and Trade Branch, Division of Technology, Industry and Economics, France and Switzerland |
| <b>Raras, Rhodora May</b>                             | GIZ, Private Sector Promotion Programme (PSP SMEDSEP), Philippines  |
| <b>Simpson, Joni</b>                                  | ILO, Women's & Youth Entrepreneurship Small Enterprise Programme, Switzerland                                   |
| <b>Tandon, Nidhi</b>                                  | Networked Intelligence for Development, Consultant to UN Women for Rio+20, Canada                               |
| <b>van der Wees, Catherine</b>                        | Hivos, Green Entrepreneurship, Netherlands  |
| <b>Wanjiru Njagi, Lucy</b>                            | UNDP, Gender, Environment & Climate Change, USA   |
| <b>Weinz, Wolfgang</b>                                | ILO, SECTOR Department, Tourism, Switzerland  |
| <b>Winter, Laura</b>                                  | GIZ, Economic Integration of Women (EconoWin) in the MENA region, Egypt   |

# Imprint

## **Published by**

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Sector Project Sustainable Economic Development

Registered offices  
Bonn and Eschborn, Germany

|                          |                          |
|--------------------------|--------------------------|
| Dag-Hammarskjöld-Weg 1–5 | Friedrich-Ebert-Allee 40 |
| 65760 Eschborn, Germany  | 53113 Bonn, Germany      |
| T +49 6196 79-0          | T +49 228 4460-0         |
| F +49 6196 79-1115       | F +49 228 4460-1766      |

info@giz.de  
www.giz.de

## **In cooperation with**

Green Growth Working Group (GGWG) of the  
Donor Committee for Enterprise Development (DCED)

## **Authors**

Markéta von Hagen and Johanna Willems

## **Design**

Eva Hofmann, Katrin Straßburger / W4 Büro für Gestaltung, Frankfurt

## **Print**

Top Kopie GmbH, Frankfurt

GIZ is responsible for the content of this publication.

As at: October 2012

## **Financed by**

Federal Ministry for Economic Cooperation  
and Development (BMZ)

Division for Economic Policy; Financial Sector

Addresses of the BMZ offices

|                      |                       |
|----------------------|-----------------------|
| BMZ Bonn             | BMZ Berlin            |
| Dahlmannstraße 4     | Stresemannstraße 94   |
| 53113 Bonn, Germany  | 10963 Berlin, Germany |
| T +49 228 99535-0    | T +49 30 18535-0      |
| F +49 228 99535-3500 | F +49 30 18535-2501   |

poststelle@bmz.bund.de  
www.bmz.de