# WOMEN / ENERGY / CLIMATE

Linking SDGs to drive finance to high-impact projects



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### WOMEN / ENERGY / CLIMATE Introduction

The bold ambition in Sustainable Development Goal (SDG) 5 to "Achieve gender equality and empower all women and girls" can act as a tremendous catalyst toward achieving many SDGs. A **2017 policy brief** for the International Institute for Sustainable Development (IISD) points out, "Among the 230 unique global SDG indicators, 53 explicitly reference women, girls, gender, or sex." For example, ensuring women's participation and leadership in decision making can help address inequalities (SDG 10) and contribute to more peaceful and inclusive societies (SDG 16). It can also lead to improved social outcomes, like family health (SDG 3) and education (SDG 4). Giving women voice and agency can be transformative even in environmental management – from ecosystem conservation to climate change mitigation. Despite these linkages, according to UN Women, "there are no internationally established methodologies or standards for 23 out of the 53 gender-related indicators."

While governments and private sector actors alike are increasingly aligning their strategies to the SDGs, rigorous implementation, consistent metrics, and robust, long-term monitoring and accountability mechanisms are needed to turn commitments into concrete outcomes. Lessons learned from carbon markets demonstrate how strong standards and verified impacts can catalyse funding through results-based finance frameworks to help mainstream gender in the Agenda 2030.

Building on 15 years' work developing standards and certifying over 1400 projects around the world that address climate change and deliver development benefits for local communities, Gold Standard launched 'Gold Standard for the Global Goals' in 2017. This pioneering standard is fully aligned with Agenda 2030 and features a Gender Equality Framework to capitalise on the transformative potential for women's empowerment to fight climate change and achieve other development goals.

Gold Standard certification offers funders and investors the reliability and transparency to ensure their investments result in measurable outcomes in climate and social impacts.



### **WOMEN / ENERGY / CLIMATE** Gold Standard for the Global Goals – results based finance for the SDGs

The bold ambitions of both the Paris Agreement and the SDGs call for 1) finance to be leveraged as effectively as possible, 2) accurate measurement of progress toward both global agendas. A results-based finance approach, which links payments or other rewards to confirmed delivery of quantified outcomes, can help maximise the effectiveness of funding and track progress toward a wide range of SDG impacts.

**Results-based finance** has its roots in the health sector, with examples including the European Commission Millennium Development Goal Contracts, the Global Alliance for Vaccines and Immunisation (GAVI Alliance), and the Cash on Delivery approach developed by the Center for Global Development. Carbon markets later emerged following the adoption of the Kyoto Protocol, using a results-based finance mechanism to drive funding to climate protection (carbon offset) projects, where a carbon credit represents a verified ton of CO2 prevented from entering the atmosphere.

Gold Standard has always required carbon offset projects to go beyond climate mitigation. Projects seeking Gold Standard certification to fund their activity through carbon credit revenue must contribute to climate security plus deliver two additional verified development benefits. Its standard launched in 2017, Gold Standard for the Global Goals, now features a Gender Equality Framework focused on leveraging gender equality to deliver on the broader Agenda 2030 and to measure progress in a credible way.



### **WOMEN / ENERGY / CLIMATE** *Gender Equality Framework*

With clearly defined SDG 5 indicators and increasing evidence of the transformative potential for women's empowerment to fight climate change and achieve other development goals, the Gender Equality Framework within Gold Standard for the Global Goals can apply a results-based approach to catalyse finance for gender outcomes. By quantifying and verifying contributions toward SDG 5 targets and indicators, projects can tap into additional funding beyond carbon credit revenue from an increasing pool of gender-lens investors and a rising demand to credibly report on what impact development dollars have delivered.

The Gold Standard Gender Equality Framework (Figure 1) features a range of indicators that can be selected according to what funders or projects prioritise. This gender-disaggregated impact data can also be used to track progress at a regional or national level, helping policymakers to develop effective evidence-based policies and enabling tracking of progress toward the gender equality and other SDGs in initiatives like the Global Partnership for SDGs.

The Framework's 'Gender Sensitive Requirements' ensure that projects anchor gender equality at the core of their design by following the latest best practices. This includes consulting with a representative cross-section of local women and men and ensuring gender-sensitive safeguards specific to that community and project activity are followed.

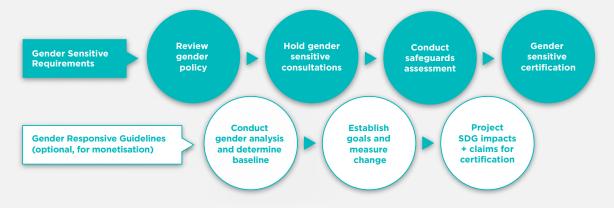


Figure 1 – Gold Standard Gender Equality Framework

With a certified 'Gender Sensitive' project design, the Framework's 'Gender Responsive Guidelines' then provide guidance on how to assess impact according to a wide range of SDG 5 indicators, for example:

- > Increase in school enrolment and graduation rates
- > Increase in income generation opportunities and equal pay
- > Improved access to financial mechanisms
- > Incentives to recruit women, increase capacity and provide career development
- Time saved in collecting and carrying water, fuel and forest products and putting it to better use

A Certified SDG Impact statement is issued after the project undergoes performance verification and certification, providing details for what processes and methodologies have been followed and what outcomes have been achieved.

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### WOMEN / ENERGY / CLIMATE Gender in Climate + Energy Projects

Climate protection projects in carbon markets have already been shown to be an effective way to achieve SDG 5 results. In fact, many of these projects, including renewable energy and energy efficiency interventions, can be optimal vehicles for investments in gender equality, as they often center on female end-users and already incorporate results-based finance mechanisms.

Projects that deliver clean and efficient cooking solutions to women in vulnerable communities, for example, have tackled many of these social, economic and environmental challenges. These efforts have helped lower household spending on fuel, minimise women's 'drudgery', or the many hours spent on unpaid work like fuel collection and long cooking times, and reduce their exposure to toxic fumes from indoor air pollution, which is closely linked to respiratory and cardiovascular disease.

Robust project design and verified impacts can help overcome the following key obstacles to mainstreaming gender equality in the Agenda 2030:

#### **Data collection**

Carbon market projects undertake extensive **data collection and 1:1 household interviews**. These can be adapted to include gender-specific and gender-disaggregated information, helping to close the data gap.

#### Serving the most vulnerable

Marginalized populations, such as low-income, rural women, are often left behind by national policies and programs. The latest Human Development Report highlights that while the past 25 years have brought significant improvements in human development, "gains have not been universal, and not all lives have been lifted." The inequality in human development between rural and urban populations exists on many fronts:

"Nearly half of people in rural areas worldwide lack access to improved sanitation facilities, compared with a sixth of people in urban areas. And twice as many rural children as urban children are out of school[...] Some 89 percent of the planet's urban population has access to 3G mobile broadband, compared with only 29 percent of the rural population" (UNDP, 2016).

Overlapping the rural/urban dichotomy are gender inequalities. The same UNDP report states:

"There are more women than men living in poverty [...] Women take on a disproportionate amount of unpaid work in the home, forgoing opportunities for other activities, including education, visits to health centres and work outside the home."

By focusing on women in rural areas, carbon offset projects like improved cookstoves initiatives reach these people on the fringe of progress in human development. Beyond simply accessing these individuals, robust requirements within Gold Standard for the Global Goals require baseline analysis, local stakeholder consultations and stakeholder feedback remediation to ensure projects identify and respond to communities' needs, and provide access to grievance mechanisms when needed.

#### Long time scales

Effectively empowering women can often require many years, and project budgets for development interventions seldom account for this longer timeframe. Carbon offset projects, on the other hand, are designed for 10-30 year implementation cycles and are therefore well-suited for long-term commitments, monitoring, and consistent reporting on outcomes.



### **WOMEN / ENERGY / CLIMATE** Carbon market infrastructure and how to adapt to Gender impact/monitoring

Carbon markets rely on precise and transparent tracking of outcome data. The major carbon standards, including Gold Standard, use secure public registries, where all project design documentation as well as verification and certification information is published and can be accessed at any time. This includes unitized carbon credits that represent the metric tons of CO2e reduced as a result of the project activity. Each carbon credit has a unique serial number and is issued as a financial asset that can be purchased and 'retired' by companies, organisations, or governments that are seeking to make a positive climate impact by offsetting their carbon footprints. Figure 2 illustrates the cycle from project development to carbon credit issuance and retirement.

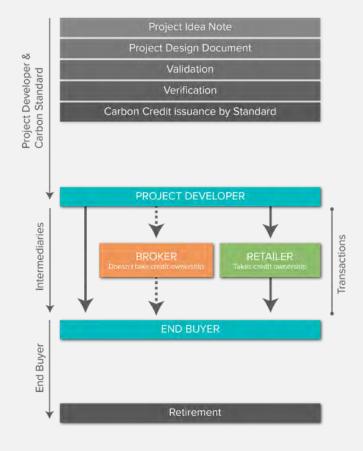


Figure 2 – Carbon credit issuance cycle Adapted from *Ecosystem marketplace* 

With Gold Standard for the Global Goals, these public registries will expand beyond climate outcomes, tracking all certified SDG impact data from a certified project and providing guidance on claims that projects and funders may make. This helps avoid over-claiming, double-claiming, or other practices that could lead to what is being called "SDG washing."

Thus, projects have clear and transparent accounting of performance outcomes against climate, gender, energy access and other SDG indicators. The SDG 5 outcomes can then be funded by gender-lens investors, sustainability-minded companies, public institutions, or any organisation interested in supporting gender equality.

#### From Outputs to Impact

To date, carbon finance has been able to support the project development and monitoring for outputs, like number of household devices distributed, or outcomes, such as tons of CO2e mitigated or time and cost savings. However, to understand how these outcomes translate to impact, further monitoring and associated resources are needed. For example, additional monitoring can assess not only what time and costs were saved, but how these were then used to, for example, pursue employment opportunities, generate income, or further education and skills development. In regards to SDG 3, Good Health and Well Being, a new methodology developed by Gold Standard to assess the avoided Disability-Adjusted Life Years, provides a clear picture of health impacts that are achieved from improved cookstove interventions as a result of reduced exposure to smoke and toxic fumes.

Funders that provide additional finance to enable this more detailed monitoring will help community-based climate protection projects such as improved cookstoves or safe water access to move from tracking inputs, activities and outputs to certified outcomes that indicate the full impact of the intervention (Figure 3).

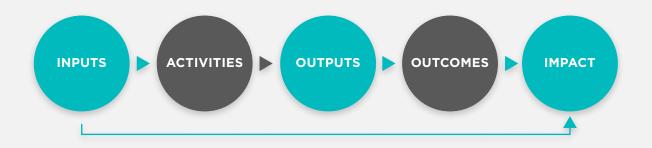


Figure 3 — Rigorous standards and robust monitoring shift reporting on inputs and outputs to verified SDG outcomes and impact.

In doing so, funders can ensure their investment delivers long-term verified impact to climate, energy access, gender equality, or any of the SDGs that they prioritise.



## WOMEN / ENERGY / CLIMATE Cookstoves in Brazil – Background and local context

Despite having well-developed industries and distribution networks of liquefied petroleum gas (LPG) and modern cooking appliances, Brazil still has a large population that relies on traditional wood-burning stoves for daily cooking. Approximately 30 million people in Brazil still depend on firewood for domestic cooking, with the highest concentration in the country's Northeast region (Gioda, 2017). Traditional stoves are rudimentary, and generally composed of a few stones or loose bricks, cobbled together to support a pot over an open fire. Wood-burning stoves release CO2, CO, CH4 and other greenhouse gases and products of incomplete combustion into people's homes and into the atmosphere (Smith, 2006). The traditional stoves do not have a chimney and have extremely low thermal efficiency, with high emission of pollutants, especially particulate matter (Gioda, 2017).

The problems arising from this wide-spread cooking practice include:

- Household air pollution, which is especially damaging to the health of women and children who suffer from daily exposure to smoke
- > High consumption of firewood, resulting in deforestation and forest degradation
- Global warming, due to the emission of unnecessary amounts of greenhouse gases and short-lived climate pollutants

Since 2008, local nonprofit Perene Institute has been implementing Gold Standard-certified improved cookstove projects in rural Brazil, demonstrating the interlinkage of climate, energy, and gender, and generating carbon credits to finance project activity. To date, Perene Institute has substituted 7,800 open-air stoves with efficient, masonry cookstoves, directly benefiting over 25,000 people.

By substituting rudimentary stoves with efficient cookstoves and training in cookstoves and training project beneficiares on stove maintenance, Perene is helping to transform daily life in hundreds of rural villages.

From the start, women have been central to Perene Institute's Efficient Cookstoves initiative in project design, implementation and monitoring. Local forests and the global climate benefit too, as the improved cookstoves reduce wood use and greenhouse gas emissions by half.

Participants of the improved cookstove program mirror the population of Brazil's poor countryside: rural, low-income families, engaged in subsistence farmers/fishermen and of mixed African and indigenous descent – with a Human Development Index of 0.60-0.63 (Atlas Brasil, 2013). Most of the families that use wood as their primary cooking fuel fall under the category of "extremely poor" (monthly income of less than US\$35) and "poor" (monthly income US\$35-65) according to the Brazilian federal government through the Institute of Applied Economic Research in its special report entitled Profile and Evolution of Poverty in Bahia State 2004-2009 (de Souza, 2012). Those most affected by the daily exposure to household air pollution are women, primarily responsible for preparing meals and performing other domestic work, and their young children.



To date, Perene Institute has substituted 7,800 open-air stoves with efficient, masonry cookstoves, directly benefiting over 25,000 people.

### **WOMEN / ENERGY / CLIMATE** *Cookstoves in Brazil – Gender Responsive certification, challenges and opportunities*

The introduction of the SDG framework and application of Gold Standard for the Global Goals offers new opportunities and tools to promote and measure outcomes in terms of gender equality. At the same time, achieving Gender Responsive certification requires a more comprehensive and precise – hence more costly – approach to project monitoring. Table 1 on the following page summarises on the following page the targets and indicators selected, together with Perene's historic activities and the new activities under SDG 5 Gender-Responsive Certification.



GENDER EQUALITY AREA	CURRENT IMPACT AND MONITORING	GENDER-RESPONSIVE APPROACH		
		SDG 5 TARGET	SDG INDICATOR	NEW IMPACT AND MONITORING
Burden of domestic work on women	Self-reported impacts on time-savings in fuel collection and house- work, collected through in-home surveys	<b>5.4</b> —Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protec- tion policies and the promotion of shared responsibility within the household and the family as nationally appropriate	<b>5.4.1</b> —Proportion of time spent on unpaid domestic and care work, by sex, age and location	Time savings study to determine quantita- tive change in time dedicated by women in fuel collection and cooking-related tasks due to adoption of new stove technology and practices and analysis of saved time spent
Women in leadership	Network of Community Agents, women identified from the population of local stove users in rural communities	<b>5.5</b> —Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	<b>5.5.2</b> —Proportion of women in managerial positions	Expand team to include new managerial posi- tions and training, and adopt Equal Work Equal Pay policy
Gender-based violence	No activities under current approach; implementation con- tingent on new funding opportunities	<b>5.2</b> —Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	<b>5.2.2</b> —Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence	Launch trafficking awareness and preven- tion campaign in rural communities, to reduce risk of rural women mi- grating to urban centers and becoming victims of sexual exploitation
Sexual and reproductive health	No activities under current approach; implementation con- tingent on new funding opportunities	<b>5.6</b> —Ensure universal access to sexual and reproductive health and reproductive rights	<b>5.6.1</b> —Proportion of women aged 15-49 years who make their own informed decisions regarding sexual rela- tions, contraceptive use and reproductive health care	Partner with local and state health authorities to improve access to family planning informa- tion and resources for young women in rural areas
Access to and opportu- nities regarding digital technology OR Empowering women through digital technol- ogy	No activities under current approach; implementation con- tingent on new funding opportunities	<b>5.B</b> —Enhance the use of enabling technology, in par- ticular information and communications technology, to promote the empowerment of women	<b>5.B.1</b> —Proportion of individuals who own a mobile telephone, by sex	Harness existing mobile phone network to build connectivity and explore micro-en- terprise opportunities with women

 Table 1 – Historic and proposed gender indicators from Efficient Cookstoves initiative in Rural Brazil

#### **Domestic Work**

SDG Target 5.4 addresses the unequal burden shouldered by women throughout the world in regards to domestic labor. It is estimated that in Brazil women spend 2.5 times the number of hours as men in unpaid domestic work (de Melo, 2016). As Perene's cookstove model reduces wood use by half, there is significant time savings in fuel collection reported by the cookstove users. Prior to implementing the Gold Standard Gender Responsive guidelines, monitoring of project impacts was limited to in-home surveys. Responses to survey questions are given in relative terms: "more/less/same" time for each activity comparing old stoves to new stoves.

Monitoring surveys (Perene, 2016) reveal that 80% of users report spend less time to collect wood with the new stove. In addition, the absence of open flames to blacken cookware and the significant reduction in smoke in the home also reduces domestic drudgery: 89% report that their homes are cleaner overall with the new stove. Less tangible but equally important is that owners of improved cookstoves display a new-found pride in their homes and in themselves. Rural women report improved self-esteem and status on par with urban dwellers, as they become free of the stigma and discomfort of clothes, hair and skin damaged by smoke.

Building on the self-reported evidence of time savings, a Gender Responsive approach would capture the number of hours of fuel collection and domestic drudgery saved and how those savings translate to positive change. With additional investment, a paired-sample study of approximately 120 households to track time, distance and frequency of fuel collection, time spent in cleaning and cooking activities, as well as how time is spent, for instance in education or income-generating activities, could be carried out to determine the full impact of the substitution of traditional stoves by improved cookstoves. This impact data can enable further monetisation of the outcomes beyond carbon credit income.

#### Women in Leadership

Women have been involved as decision makers from the start of Perene Institute's work. From lead engineer to field agents, female leadership is a pillar of the organisation's successful promotion of better cooking technology and practices. In the design phase, women participate on equal ground as men, contributing to the cookstove specifications, features and materials. In user aspects, women's voices have been the most valuable, as they represent over 85% of the cookstove users. The participative approach has proven to be highly effective and the model has been well adopted and fitted to local cooking customs. Women continue to play a determining role when it comes to implementation: they are responsible for signing the Terms of Agreement, deciding with the construction team where the new stove will be located, giving feedback during household visits and surveys and sharing information with other community members about the project. In monitoring activities, local women are trained as Community Agents, carrying out annual surveys and teaching cookstove users how to best operate and maintain their stoves.

With the adoption of SDG Indicator 5.5.2, Perene will invest in strengthening the role of the Community Agents and include two new positions: Community Agent Coordinator and Training Supervisor. Increasing the participation of women in managerial positions is expected to have a direct and positive effect on the long-term adoption rates of stove users and the overall success of the project.

It is important to note that the sale of carbon credits at current market prices does not provide sufficient project funding for the additional time-savings studies needed to monitor SDG Indicator 5.4.1 (Time spent on domestic work), or for hiring additional human resources for progress on SDG Indicator 5.5.2 (Women in managerial positions), which would be required for Gender Responsive Certification. This opens the opportunity for new funding and partners to leverage the existing project development framework for carbon offset projects - community relations, credibility, logistics, communications and implementation team - to deliver impact towards numerous SDG 5 Targets. Examples of additional synergistic targets include:

- Target 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation. Existing monitoring activities of the project mean that female Community Agents visit hundreds of homes in their rural communities and speak one-on-one with women in the safety and privacy of their homes. With additional training and support, Community Agents could also raise awareness of the risk of trafficking among the population and help prevent the tragedy of young women being lured to urban centers to become victims of sexual exploitation.
- Target 5.6 Ensure universal access to sexual and reproductive health and reproductive rights. In a similar way, the cookstove projects' household visits and periodic community meetings have the potential to reach thousands of women in remote areas, connecting them with existing public family planning services.

Target 5.B Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women. In recent years, mobile phone ownership in rural areas has become widespread and most town centers offer somewhere to access the internet. The potential for empowering women - through connectivity platforms, online training courses, small business ventures - is obvious, but starting up such initiatives in remote, low-resource settings is daunting. The existing infrastructure and operational momentum of Efficient Cookstoves projects, coupled with the relationship of trust built by years of delivering on commitments, offers an unparalleled context to launch such women-centered initiatives.

#### **Alignment with National Gender Policies**

The Efficient Cookstoves initiative is fully aligned with Brazilian policies for gender equality. Brazil's national gender policies are spearheaded by the Ministry of Justice and Citizenship under the Special Secretariat for Women's Policies. The overarching mission of the Secretariat is:

"Promoting the capacity and participation of women in the roles of power and decision-making, based on the understanding that the under-representation of women has diverse causes. Therefore, changes must be promoted in various social spheres including: cultural, educational, legislative and institutional" (Ministry of Justice and Citizenship, 2017).

Two of the main actions outlined by the Ministry, in particular, are directly promoted by the Efficient Cookstoves program: (1) Support the capacity-building of women leaders and (2) Make available data, information and studies on the subject of gender. Since its inception, the Efficient Cookstoves program has invested in women leadership, from Perene´s Technical and Monitoring management and the 65 rural women who form the Community Agents network to the 6,500 women trained in adopting new technology and better practices.

Regarding action (2) of Ministry, all project data is gender-disaggregated and made publicly available through the online Registry. This practice contributes to the national effort of monitoring and evaluating impacts on a gender basis and increases project transparency.

As the Efficient Cookstoves project demonstrates, project activities can and should be aligned with the national Gender agenda. In fact, adoption of the Gold Standard Gender Equality Framework ensures that projects meet or exceed the requirements of their host country regarding Gender Equality. Reviewing federal and local legislation and incorporating pertinent aspects in project design is an essential step in the project certification process.



### WOMEN / ENERGY / CLIMATE Conclusions

What's clear is that gender issues are complex, but addressing them can be transformative. Indeed, closing gender gaps can accelerate progress towards many other Sustainable Development Goals. The UN Food and Agriculture Organization makes a convincing case when it states:

"Women reinvest up to 90% of their earnings back into their households - that's money spent on nutrition, food, healthcare, school, and income-generating activities - helping to break the cycle of intergenerational poverty" (FAO, 2016).

Rather than approach SDGs individually, designing initiatives that simultaneously address energy, climate and gender-related needs, for example, can achieve a better return on investment.

Conversely, poverty, education, health, jobs and livelihoods, food security, environmental and energy sustainability will not be solved without addressing gender inequality. If the global community can truly achieve the bold ambition of 'gender equality for all', it is first necessary to understand progress in the race to 2030 and, critically, get the greatest impact out of every development dollar spent.

Projects that have proven results, such as Gold Standard-certified climate protection projects can serve as reliable vehicles for future investments toward the 2030 Agenda. The rigorous monitoring and evaluation process inherent to verified climate protection projects can be built upon to incorporate targets and indicators of complementary SDG actions, ensuring the highest level of accountability.

The Sustainable Development Goals offer a comprehensive roadmap to solving the most urgent social, economic and environmental challenges of our times. But without an unwavering commitment to achieve evidence-based results, "SDG-washing", like "greenwashing" that came before it, can undermine the credibility and effectiveness of the Agenda. For this reason, it is essential that developers and investors apply proven methodologies for project design, implementation and evaluation, including a holistic approach that takes advantage of the interconnected nature of the SDG Agenda.



### References

- Wahlén, CB. (2017). Achieve Gender Equality to Deliver the SDGs. IISD SDG Knowledge Hub.
- Grittner, AM. (2013). Results-based Financing: Evidence from performance-based financing in the health sector. German Development Institute.
- de Souza, P. a. (2012). Perfil da Pobreza na Bahia e sua Evolução no Período 2004-2009. Brasilia: Instituto de Pesquisa Econômica Aplicada.
- Gioda, A. (2017). Queima de lenha e carvão Poluição do ar e riscos para a saúde.
   Pontifícia Universidade Católica , Rio de Janeiro.
- FAO (2016). Women hold the key to building a world free from hunger and poverty http://www.fao.org/news/story/en/item/460267/icode/
- > Perene Institute (2016). GS832 Monitoring II Report.
- Ministry of Justice and Citizenship. (2017). Poder e Participação Política. Obtido em setembro de 2017, de Secretaria Especial de Politicas para as Mulheres http://www.spm. gov.br/assuntos/poder-eparticipacao-politica
- Ministry of Justice and Citizenship. (2017). Igualdade de Gênero no Campo, na Floresta, nas Águas. Obtido em Setembro de 2017 http://www.spm.gov.br/assuntos/mulheres-docampo-e-da-floresta
- Smith, K. R. (2006). Health impacts of household fuelwood in developing countries. Forests and human health - FAO.
- United Nations Development Program (2016). <u>Human Development Report 2016:</u> <u>Human Development for Everyone</u> http://hdr.undp.org/sites/default/files/2016\_human\_ development\_report.pdf