2014

# CANADIAN SPHAGNUM PEAT MOSS ASSOCIATION

## Industry Social Responsibility Report

2014

# INDUSTRY SOCIAL RESPONSIBILITY REPORT

Canadian Sphagnum Peat Moss Association

# CSPMA INDUSTRY SOCIAL RESPONSIBILITY (ISR) REPORT PARAMETERS

| | |
|---|---|
| **Year of publication** | 2014 – It is the first Industry Social Responsibility (ISR) Report of the CSPMA. |
| **Periodicity** | An ISR Report will be published every three years. |
| **Reporting period** | Information presented covers the years 2010 to 2012 unless otherwise stated. Future reference period will be defined in the next ISR Report. |
| **Guideline** | SAFA Guidelines, version 1.1 (pilot test stage). The ISR Report has been adapted to the Canadian peat moss sustainable issues. |
| **Scope** | The ISR Report is published by the Canadian Sphagnum Peat Moss Association (CSPMA) which represents Canadian peat moss producers.<br><br>The ISR Report includes the CSPMA and its members' activities. Information provided in this report is from various sources and is focused on the peat moss industry sustainable issues and covers the year of 2010-2012.<br><br>Goals and objectives (defined as "next steps" in this report) have been defined by and engage only the CSPMA. |
| **Report writing** | Groupe AGÉCO wrote the ISR Full Report (long version) in collaboration with the Science Coordinating Committee of the CSPMA. This Full Report is available upon request. |
| **External review** | The ISR preliminary report version has been reviewed by two external reviewers :<br><br>▪ Methodological aspects have been reviewed by Haykel Najlaoui, GRI certified trainer Director, Neuvaction;<br><br>▪ Technical aspects have been reviewed by Dr. Michael Keyes, Senior Agriculture and Natural Resource Specialist, SGS Global Services.<br><br>External certificates are available in Appendix 2 "External Review" of the ISR Full Report. |
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# 1 - MESSAGE FROM THE BOARD OF DIRECTORS

The Canadian Sphagnum Peat Moss Association (CSPMA) includes **14 peat moss producers and marketers representing 95% of Canada's total harvesting.**

Canada, the world's largest producer and exporter of sphagnum peat moss for horticultural use, produces more than 65% of the sphagnum peat moss used in the United States. Imports of peat from Canada represent 97% of total United States imports and 85% of total Canadian production.

The total annual value of peat moss production in Canada is estimated at **$337 million dollars.** The industry generates through its activities approximately **$152 million dollars in GDP** and provides more than **3,000 direct and indirect jobs** to Canadians all across the country

The industry is recognized as an **international leader for its sustainable practices.** The **VeriFlora® certification** is one of these practices and represents a standard of excellence in responsible management for peat moss production. Today, at least 65% of the peat harvested in Canada is VeriFlora® certified.

Recently, **social and environmental life cycle assessments were conducted to provide for a list of impacts generated by the sector.**

In order to structure and organize the results of the various responsibility initiatives in a coherent and comprehensive way, the CSPMA decided to produce a first **Industry Social Responsibility** (ISR) Report. The publication of the ISR Report is meant to communicate the work done so far, as well as the sector's upcoming commitments.

To ensure the rigour and objectiveness of its reporting initiative, the CSPMA joined a Food and Agriculture Organization (FAO)'s project aiming at developing a social and environmental sustainable reporting methodology adapted for the agricultural sector known as the **Sustainability Assessment of Food and Agriculture Systems** (SAFA). The FAO has accepted the CSPMA's reporting project as one of twenty global pilot initiatives participating to the advancement of the SAFA Guidelines.

With all these initiatives, the Canadian peat moss industry aims at remaining the **worldwide sustainable practices leader** in the sphagnum peat moss production and **an example for its social responsibility practices.** For the coming years, priorities are to:

- support sustainability research in environmental areas that are impacted by peat moss industry,
- ensure that restoration of post-harvest sites are conducted by the CSPMA's members in accordance with government compliance, and
- enhance close, positive and supportive relationships with various levels of government and with First Nations and Métis communities, and engage in constructive dialogue with NGOs and consumers.

We are pleased to communicate our first Industry Social Responsibility report.

**Paul Short**
President
Canadian Sphagnum Peat Moss Association

# 2 - CANADIAN SPHAGNUM PEAT MOSS INDUSTRY

## 2.1 CANADIAN SPHAGNUM PEAT MOSS AND ITS FEATURES

**Sphagnum peat moss is a natural resource formed by the decomposed part of Sphagnum moss or other plants that grow in bogs. The process of peat formation, which takes place over centuries, consists in the accumulation of vegetation material in wetlands called peatlands. Peat moss has a large cell structure that enables it to absorb air and water like a sponge. Although peat moss does not contain nutrients, it absorbs nutrients added to or present in the soil, releasing them over time as the plants require.**

**In a nutshell, peat moss is a natural, organic soil conditioner that regulates moisture and air around plant roots for ideal growing conditions making it a prized component of the horticulture and floriculture industry.**

### 1 Ensuring proper drainage

Drainage ditches are dug around and within the development site to drain a portion of the peatland's water.

### 2 Removing surface vegetation

Surface vegetation is removed using a rotovator, giving access to the peat deposit. Plant fragments can be collected as donor material to restore other sites.

### 3 Levelling the ground

A leveller is used to evenly shape the ground and to crown it to facilitate drainage and drying.

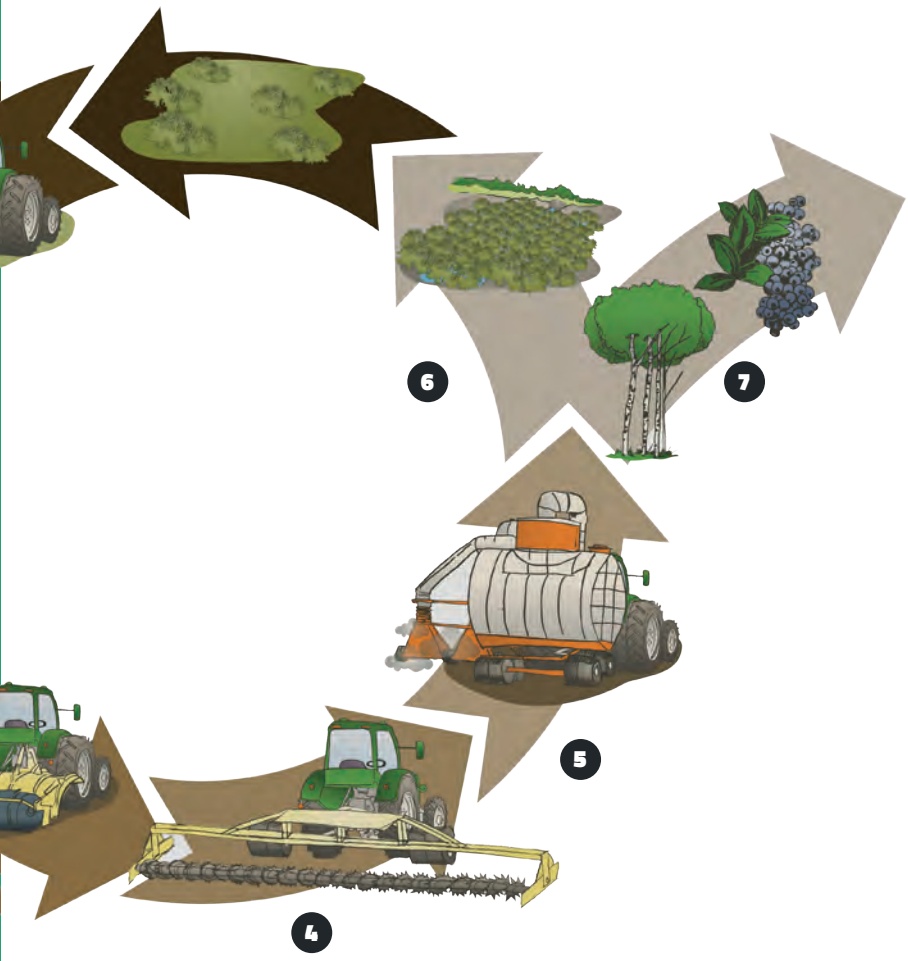
### 4 Preparing the field

Sun and wind are required to dry the surface peat layer before harvesting. An uppermost layer is usually harrowed to disrupt capillary flux (a process called milling), which accelerates the drying process.


## 2.2 A SIGNIFICANT RESOURCE AND AN IMPORTANT ECONOMIC ACTIVITY IN CANADA

- In Canada, sphagnum peat moss is harvested mainly for horticultural purposes. The situation is different elsewhere: approximately 50% of world production is for energy use namely in countries such as Finland, Russia, Ireland, Sweden and to a lesser extent in Eastern Europe (USGS, 2012; IPS, pers. comm.).
- Canada's overall peatland resource base is estimated at 113.6 million hectares (Tarnocai *et al.,* 2011). Of this land, 81% is in natural state and only 0.02% has been or is currently used for peat moss production (Environment Canada, 2013).
- Over 20 million tons of peat accumulates each year in Canadian peatlands (Carlson *et al.,* 2010).
- 1.14 million tons of peat is harvested on a yearly basis in Canada (Natural Resources Canada, 2011).
- Eastern provinces (Ontario, Québec, New Brunswick, Nova Scotia and Prince Edward Island) account for grossly 75% of the Canadian production and Western provinces (Alberta, Saskatchewan and Manitoba) for 25% (Natural Resources Canada, 2011).
- Peat moss is an essential input used in the multi-billion dollar North American horticultural industry. Imports of peat moss from Canada represent 97% of total United States peat moss imports and 85% of total Canadian production (USGS, 2012).
- Peat moss production in Canada generates sales of approximately $337 million dollars (CIRAIG and Groupe AGÉCO, 2012).
- The peat industry contributes $152 million dollars to Canada's GDP and provides 3,000 direct and indirect jobs to Canadians all across the country. Rural areas of the country benefit most from the economic activity generated by peat moss harvesting and production (CIRAIG and Groupe AGÉCO, 2012).

**Figure 1 - Peat production cycle**




### 5 Drying and collecting

One to three days later, the dry peat layer is collected using large vacuum harvesters or other equipment. The peat is transported to a processing facility for screening and packaging. Often, peat is combined with other ingredients such as compost, bark, fertilizer, etc.

### 6 Restoring peatlands

At the end of the development cycle, the harvest site can be restored, meaning the vegetation cover is re-established and the peatland recovers its capacity to accumulate carbon.

### 7 Rehabilitation of peatlands

The closure of a site may involve its rehabilitation towards another type of environment, which is generally the case where conditions do not allow for the restoration of a peatland ecosystem. Examples of rehabilitation: berry crops, forest plantations, marsh creation.

# 3 - THE ISR REPORT METHODOLOGY

## SAFA GUIDELINES

The ISR Report methodology is a structured approach based on SAFA methodology (test version 1.1). SAFA provides an international reference tool for assessing the sustainability performance of food and agriculture enterprises. The SAFA framework begins with the high level, supra dimensions of sustainability: good governance, environmental integrity, economic resilience and social well-being. Each dimension contains related themes and sub-themes. Chapters of this ISR Report are structured according to these themes. Some sub-themes have been adapted to the Canadian and the sectorial specific context. For example, in the environmental dimension, the theme "Peatland management" replaces in this report the original theme "Land" identified in the SAFA Guidelines, since the issues of managing wetland and peatland differ significantly from those of "uplands". Sub-themes have been reviewed accordingly.

## THE ISR REPORT APPROACH

This ISR Report was a first experience for the CSPMA in selecting sustainable issues and collecting the relevant information. The report includes the VeriFlora® requirements and results from the peat moss environmental and social life cycle assessments. The board of directors and the Science Coordinating Committee of the CSPMA were involved in carrying out the ISR Report and defining priority objectives (defined as "next steps" in this ISR Report).

## SAFA:

**an international reference tool for assessing the sustainability performance of agri-food systems**

**The SAFA Guidelines were developed as a working proposal for assessing the impact of food and agriculture operations. SAFA offers a holistic framework that encompasses all aspects of sustainable agricultural activities. It is built mainly on existing sustainability schemes, creating opportunities for businesses to use existing data and combining efforts with other tools and sustainability initiatives. By providing a transparent and aggregated framework for assessing sustainability, SAFA seeks to harmonize sustainability approaches within the food supply chain (FAO 2012). It is hence a rigorous, credible and structuring initiative for the agri-food sector, worldwide.**

**The SAFA Guidelines have been developed in a participatory process involving different sectorial and institutional partners. A pilot has also been conducted with the participation of 23 organizations from all around the world. The CSPMA was one of them – and the only representative of the peat moss industry. That participation gave the CSPMA and its members the opportunity to structure the sector's ISR Reports based on the SAFA Guidelines (version 1.1), but also to contribute to the Guidelines development by providing recommendations to the FAO to improve and adapt them according to the peat moss reality and concerns. The final version of the Guidelines has been released in December 2013 and is available online on the FAO website. As an early member of the SAFA community, the CSPMA will continue working with the FAO and its partners in the application and further development of this international reference tool.**

# About VeriFlora® and the Environmental and Social LCA

**VeriFlora® Responsibly managed peatlands is an international standard which aims the restoration of wetlands, the promotion of social responsibility among peat moss producers and the maintenance of the use of peat for horticultural production. Certified horticultural peat producers must respect the general criteria of the VeriFlora® standard as well as the criteria specific to their sector that fall under the following seven themes:**

- **Responsible peatland management;**
- **Ecosystem conservation and protection;**
- **Conservation of resources and energy efficiency;**
- **Integrated management of waste material;**
- **Labour standards;**
- **Benefits for the community;**
- **Product quality.**

Certified companies must pass an annual evaluation by a third party independent certification.

**Environmental Life cycle assessment (E-LCA),** within an ISO standard framework, is an internationally recognized approach that evaluates the potential environmental and human health impact associated with products and services throughout their life cycle, from raw material extraction, including transportation, production, use, and end-of-life treatment. Among other uses, LCA can identify opportunities to improve the environmental performance of products at various points in their life cycle, inform decision-making, and support marketing and communication efforts.

**Social LCA (S-LCA)** is a new tool based on the PNUE/SETAC's Guidelines for social life cycle assessment of products (2009) that provides a socioeconomic assessment of the organizations involved in a product's life cycle. It focuses on businesses' behaviour and on the relationships they have with their stakeholders, such as their workers, the local community, etc. in regards to a list of social issues of concern, going from working conditions and local engagement, to procurement policy and environmental practices.

## EXTERNAL STAKEHOLDERS CONSULTATION IN QUÉBEC

The Québec Peat Moss Producers Association (Association des producteurs de tourbe horticole du Québec – APTHQ), with the participation of three peat moss producers, conducted in spring 2013 a focus group to consult their external stakeholders about the ISR initiative process. AGÉCO conducted the consultation at Rivière-du-Loup (Québec). Consumers, environmentalist groups, local community organization representatives, peat moss producers and representatives from the APTHQ and CSPMA met all together for the first time. The objective was to identify and prioritize peat moss sustainable issues and propose recommendations to the APTHQ and its members. The 2013 APTHQ Social Responsibility report (available soon) will present the stakeholder consultation synthesis. The main issues raised during the focus group were the following:

- The need for **transparency and communication** regarding the efforts made by the peat moss industry towards sustainable practices;
- **Integrated land management** appears to be a way to ensure better impact management and maximize benefits to the community;
- **Water conservation and peatland restoration** are essential for better environmental peatland management;
- **Research and development as well as product diversification** would enhance the peat moss industry's global market positioning;
- Peat moss production **social acceptability** through protection measures and awareness is an important issue to promote a good relationship with local communities.

The CSPMA took into consideration these concerns and set its social responsibility goals and objectives consequently. In its next ISR Report, the CSPMA is committed to conduct a similar initiative at the Canadian level.

## THE ISR REPORT REALISATION STEPS

This first ISR Report has been conducted in various structured steps following the SAFA Guidelines requirements (test version 1.1).

**A complete description of the realisation steps can be found in the Full Report, available upon request.**

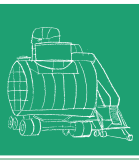
## THE ISR SCOPE

The assessment covered all operations taking place during production, transformation and distribution stages of horticultural sphagnum peat moss life cycle.

The "use" and the "end of life" steps were not taken into account in the LCA reports because they were too complex to capture at that time. These areas will need further examination in the future LCA assessment discussions.

The ISR Report belongs to the CSPMA that represents the Canadian peat moss industry and its 14 peat moss producer members.

## Table 1 – Life cycle stages of peat moss production and distribution

|  |  |  |  |  |
|---|---|---|---|---|
| Production | Conditioning | Distribution | Use (excluded) | In situ decomposition |
| **Harvest** | **Packaging** | **Transport** | **Plant growth** | **Oxidation** |
| This first life cycle stage includes the various production activities taking place at peat harvesting sites on peatlands. The production stage takes account of equipment and machinery operation, access roads construction, site drainage, ground surface preparation, vacuum harvesting and site closure operations at the end of the production cycle. Transportation between the harvesting site and the conditioning plant is also included. | Conditioning includes the various activities that take place at the plant, after harvesting. It includes the equipment, infrastructure and energy required for conditioning peat. After screening, mixing with other components, compression and packaging of the peat generally occurs. The infrastructure and energy associated with the operation of administrative buildings are also taken into account in this stage. | The distribution stage includes transportation operations from conditioning plants to final buyer markets or distribution centers (shipment lots, wholesale outlets or retailers). | As already noted, it is difficult to separate distinct processes and their environmental effects that are associated with peat from other components of plant growth. Therefore, the following were not taken into account: all resource consumption and waste production resulting from horticulture activities at the greenhouse or garden (namely, greenhouse space heating and air humidification, watering and fertilization). | Peat decomposition at the harvesting site (peatland) is not a life cycle stage in itself. However, draining the peatland modifies its greenhouse gas (GhG) fluxes: there is a reduction in methane ($CH_4$) production and an increase in carbon dioxide ($CO_2$) emissions, resulting in a net positive GhG emission to the atmosphere. The site's GhG fluxes may return to a carbon accumulation dynamic similar to the one that existed before harvesting if the peatland is successfully restored at the end of the production cycle. |

## INDICATORS, GOALS AND OBJECTIVES OF THE ISR

**SAFA Guidelines define many types of indicators:**

- **Performance-based indicators:** also called results-oriented or outcome indicators. Performance based indicators are focused on the results of compliance with an objective and can measure the performance of an operation, identify trends and communicate results.
- **Practice-based indicators:** also called prescriptive or process indicators. These indicators are focused on prescribing the necessary tools and systems required to be in place, for best practices. These indicators are process-oriented rather than outcome-oriented. These indicators assume that having management systems in place leads to better management of environmental or health and safety issues.
- **Target-based indicators:** these indicators focus on whether the operation has plans or policies with targets and ratings based on steps towards implementing them.

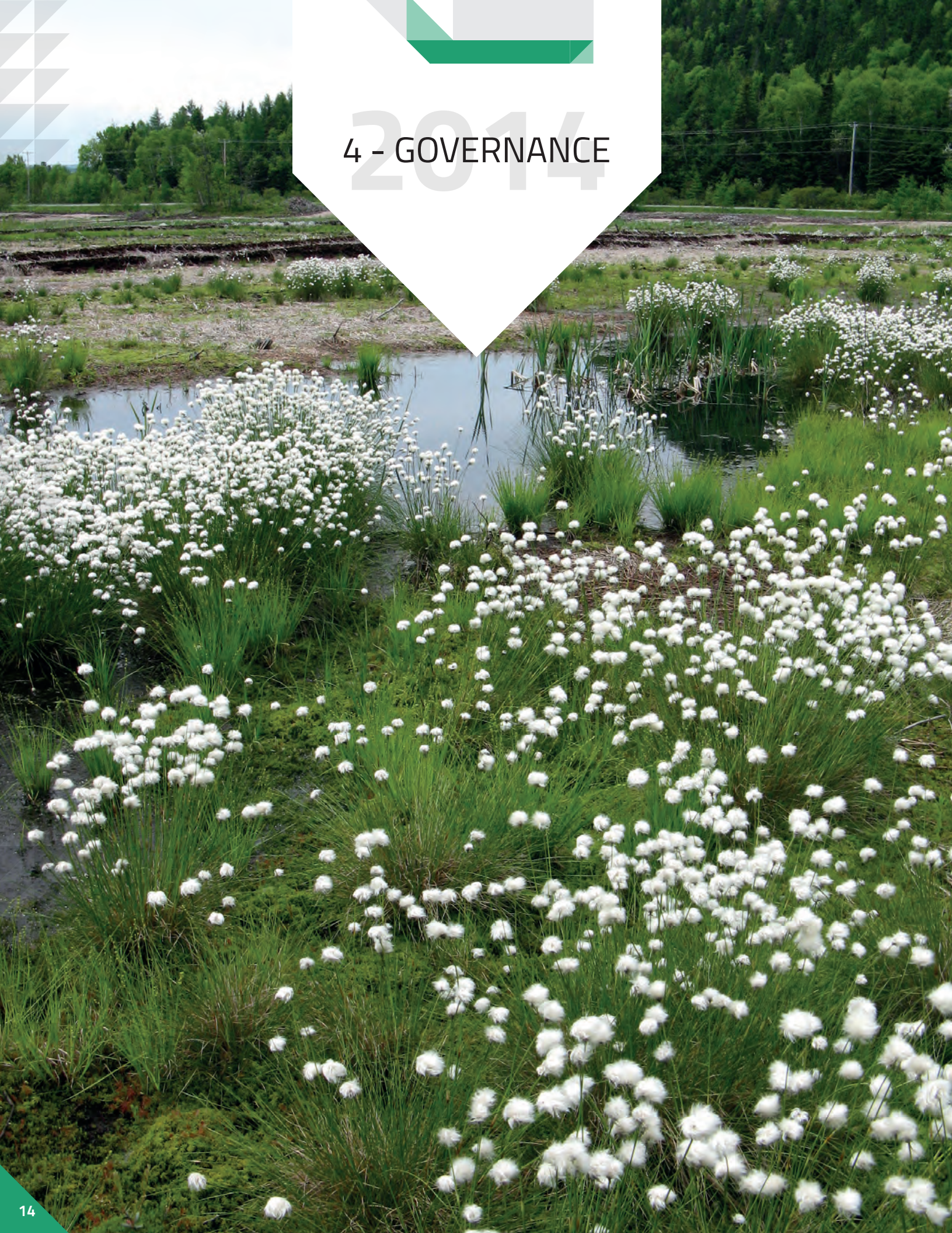
**In this ISR Report, most of indicators presented are practice-based indicators and rely on the S-LCA, E-LCA data and the VeriFlora® requirements.** Some SAFA indicators have been adjusted or added to ensure more consistency in the industry reporting performance. The CSPMA has not defined performance-based indicators or target-based indicators. However, the organization plans on defining some performance-based indicators for future ISR Reports.

For this report, the CSPMA defined specifically designed social responsibility objectives for each covered themes or sub-themes defined as "next steps". Objectives are specific actions to be carried out in order to improve the degree of social responsibility of the organization and the peat moss industry as a whole.

**Figure 2 – ISR Report realisation steps**

| | |
|---|---|
| **(1) Define goal and scope** | Meeting with the SCC |
| **(2) Adapt the SAFA Guidelines** | SAFA tool testing / Rome workshop with FAO |
| **(3) Select relevant indicators and data collection** | Meeting with the SCC to review the preliminary ISR Report |
| **(4) Definition of the social responsibility objectives** | Semi-annual meeting - preliminary version of the ISR Report |
| **(5) ISR final report redaction** | External review process |
| **External publication of the ISR Report** | |

# 4 - GOVERNANCE



**Governance is the process of making and implementing decisions. According to the SAFA Guidelines, an organization committed to sustainable development needs a sustainability-oriented governance structure. Content, values and responsibilities of the organization's governance must be clearly stated and transparency and accountability are to be ensured. Such a process facilitates active participation of all stakeholders. Further elements include a strict orientation towards legitimacy and the rule of law as well as a rigorous sustainability management. A business purpose that contradicts or ignores the sustainability principle will not lead to a sustainably operating enterprise in the long run (FAO 2012).**

**The CSPMA represents the sphagnum peat moss industry in Canada since 1988. The association acknowledges its responsibility toward sustainability and its stakeholders, as demonstrated by its participation in numerous committees and its open, transparent and democratic structure. Sustainable development is clearly stated and defined in CSPMA's mission.**

# 4.1 CORPORATE ETHICS AND ACCOUNTABILITY

**Founded to promote the benefits of peat moss to professional growers and home gardeners throughout North America, the CSPMA is a representative, democratic and socially engaged organization comprised of 14 peat producers and marketers representing 95% of Canada's total production. Canada is the world's largest producer and exporter of sphagnum peat for horticultural use. Exports to the United States alone account for 85% of total Canadian production.**

## MISSION STATEMENT

The mission statement and goals of the association were adopted in a long-term perspective to promote a sustainable development of the industry.

# CSPMA's mission statement and main goals

## MISSION STATEMENT

CSPMA is an association of peat producers and related enterprises devoted to promoting the sustainable management of Canadian peatlands and the industry. It provides advocacy and promotion for its members and leadership in environmental and social stewardship and economic well-being related to the use of Canadian peatland resources.

## MAIN GOALS

### Finance

To achieve financial autonomy with sufficient resources to carry on all programs, without overburdening members.

### Government

To establish and/or enhance close positive and supportive relationships with various levels of government to ensure input into matters of concern to the industry.

### Research

To support sustainability research in areas of environmental interests and other areas that impacts the horticultural peat industry.

### Responsibility to members

To be responsive and to provide advocacy to members in matters relating to the peat moss industry.

### Community responsibility

To ensure restoration, reclamation, resource stewardship and best practices are conducted by the association's members.

### Communication and public relations

To enhance the image and the understanding of the peat moss industry.

## REPRESENTATIVENESS, DUE DILIGENCE AND RESPONSIBILITY

The CSPMA board of directors comprises eight representatives including the President. The board is mainly composed of producers and suppliers from the industry. In addition to their legal obligations in regards to due diligence as board members, **environmental and social aspects are considered on a regular basis by the directors.**

**The CSPMA brings together fourteen members (2013) operating throughout North America:** twelve Canadian and two American companies. Some are rather small businesses that concentrate solely on harvesting peat moss. Others are much larger and integrate value-added products for end users. Membership also includes bag suppliers and affiliate members of the service and supply companies of the industry.

CSPMA also participates actively in several working groups and committees focusing on research, industry coordination and environmental issues. This participation enables the association and the industry members to identify, discuss and take action on social, environmental and economic issues with a vast array of industry, government and academic representatives, all over the country (table 3).

## Table 2 - Geographic break-down of CSPMA members

(excluding bag suppliers and affiliate members)

| Members | CANADA | | | | | | | | USA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PEI | New Brunswick | Nova Scotia | Québec | Ontario | Alberta | Saskatchewan | Manitoba | Minnesota | Massachusetts | Wisconsin |
| Acadian Peat Moss | | ◥ * | | | | | | | | | |
| Alaska Peat | | | | | | ◥ * | | | | | |
| Annapolis Valley Peat Moss | ◥ * | | ◥ | | | | | | | | |
| ASB Greenworld | | ◥ * | | | | | | | | | |
| Berger | | ◥ | | ◥ * | | | | ◥ | ◥ | | |
| Fafard et Frères / Heveco | | ◥ | | ◥ * | ◥ | | | | | | |
| Jiffy Company | | ◥ * | | | | | | | | | |
| Lambert Peat Moss | | | | ◥ * | | | | | | | |
| Nirom Peat Moss | | | | ◥ * | | | | | | | |
| Northwoods Organics | | | | | | | | | ◥ | | * |
| Premier Tech Horticulture / Premier Tech Home & Garden | | ◥ | | ◥ * | ◥ | ◥ | ◥ | ◥ | ◥ | | |
| Sun Gro Horticulture | | ◥ | | ◥ | ◥ | ◥ | | ◥ | | * | |
| Sunterra Horticulture | | | | | | | | ◥ * | | | |
| Theriault & Hachey Peat Moss | | ◥ * | | | | | | | | | |

Note: The symbol ◥ identifies where peat harvesting operations take place, while the sign * indicates in what province or state the Head Office is located.

Source: CSPMA

## Table 3 – Associations, Committees and Working Groups in which the CSPMA is involved

| Committees | Description / Activities |
|---|---|
| **ACCORD Peat Moss & Agri-environmental Cluster Committee** | The Québec Peat Moss Producers Association (APTHQ) coordinates the Peat Moss & Agri-environmental Cluster, which was formed through an agreement between the Québec government and the peat moss industry under the ACCORD Program. The Cluster gathers businesses, some governmental departments, research centers and regional development agencies. The activities of the Cluster follow an action plan directed at supporting the development of businesses in the sector and are carried out by its members through unifying projects. The Cluster includes a **scientific committee** as well as a **communication committee.** |
| **Alberta Task Force and Manitoba Task Force** | Managed by the CSPMA, members (producers) of both Alberta and Manitoba provinces are regrouped under task forces to perform a review of industry issues and evaluate policies and regulations that impact companies specifically within these two provinces. This work involves direct communication with government representatives. |
| **Canadian Business and Biodiversity Council (CBBC)** | The CBBC is a government-business-NGO-academia partnership that assists businesses in conserving biodiversity. The CBBC supports good environmental stewardship practices based on sound science by sharing best practices and lessons learned, and by showcasing successful results. |
| **Canadian Food Inspection Agency (CFIA)** | The CSPMA collaborates with CFIA on issues related to export and regulatory requirements. |
| **Coastal Zone Research Institute (CZRI)** | The CZRI provides support to the peat industry by getting involved in resource research as well as in industry products and development. The current peat industry research orientations at the CZRI are:<br>▪ Second economic life of peat and peatlands<br>▪ Development of new products<br>▪ Conservation and peatland restoration<br>▪ Harvesting and horticultural peat processing |
| **Environment Canada (EC)** | CSPMA and EC collaborate regularly on different aspects related to peatlands and GhG emissions. Recently, EC has undertaken a joint project to evaluate the anticipated and potential activity levels on land subject to peat management under various scenarios. Virtual cases of GhG emission reduction or carbon sequestration increase are developed and compared to the business-as-usual scenario. |

| Committees | Description / Activities |
|---|---|
| **International Peat Society (IPS)** | IPS is a global non-governmental and a non-profit organization aimed at fostering the study of peatlands, mires and peat. It serves as a forum to get and to keep experts from various fields that deal with peat and peatlands in touch with each other. They come from business, science, culture and regulatory bodies. |
| **Peatland Ecology Research Group (PERG)** | For over 20 years, PERG, a multidisciplinary research group, has led the most important research program in collaboration with the peat moss industry. The program is currently funded through the NSERC Industrial Research Chair in Peatland Management and the Collaborative Research and Development Grant. PERG investigates questions that arise directly from the industry on matters such as biodiversity, water and carbon exchanges in peatlands.<br><br>PERG is based at Laval University (Québec, QC) and also includes researchers from McGill University (Montréal, QC), University of Waterloo (ON) and University of Calgary (AB).<br><br>The third term of the research program (2013-2018) covers the following four topics:<br><br>▪ Land-use management<br>▪ Evaluating the restoration success<br>▪ Assessment of hydrological functions<br>▪ Carbon sequestration and greenhouse gas exchanges |
| **Science Coordinating Committee (SCC) of the CSPMA** | The Science Coordinating Committee of the CSPMA works on harmonizing provincial and national research programs. The SCC ensures the research coordination, prioritizes and recommends specific projects and research investment. The SCC is composed of industry representatives from associations and companies.<br><br>Over the next years, the SCC will work to enlarge and consolidate a network between various stakeholders and experts that may comprise representatives of research organizations, governmental organizations, NGOs, other industrial sectors of interest and First Nations. |

## TRANSPARENCY

The CSPMA does not hold a formal policy on transparency nor has a formal procedure to deal with requests for information. Such requests are currently processed case by case. The association does provide however on their website a vast array of information and resources regarding the Canadian peat moss industry, its activities and products, as well as on specific issues such as the conservation and restoration of peatlands. The association also publishes internally an annual report describing its various activities and outcomes.

The results of most studies and surveys conducted by the CSPMA are also made public (for example, all publications under the Industrial Research Chair can be found on the PERG website – www.gret-perg.ulaval.ca). The publication of this first ISR Report is meant to enhance the transparency and ease the communication of the CSPMA's performance to its stakeholders.

### Next steps – Corporate ethics and accountability

CSPMA will:

- Maintain its engagement in the examination of the social, environmental and economic issues of concern for the industry and relate them to the relevant working group / committee in order for them to be adequately covered.
- Publish an ISR Report every three years and name a person responsible for the follow up on the engagements and objectives.
- Facilitate the definition of performance-based indicators for the industry to be used in the subsequent ISR Reports of the CSPMA.
- Work collaboratively with provincial associations and companies to carry out benchmark sustainability surveys to support the publication of the next ISR Reports (every three years).
- Provide access to the Annual Report online.
- Adopt a transparency policy defining the process through which information about the association and its activities are made publicly available.

## 4.2 DIALOGUE WITH STAKEHOLDERS

**As with the issue of sustainable development, many different stakeholders may be affected by the producer's decisions and activities. In the SAFA context, an organization is expected to pro-actively identify stakeholders, which include all those affected by the activities of the producers (including any stakeholders unable to claim their rights), and ensures that all are informed, engaged in critical decision making, and that their input is duly considered.**

Through its mission and activities, the CSPMA is engaged in an ongoing dialogue with various stakeholders. The association has not yet performed a formal and systematic process of identifying and consulting its stakeholders in a social responsibility perspective. Some initiatives have however already been accomplished in that direction. For instance, the actors who have a stake in the CSPMA and the peat moss industry have been broadly defined in the S-LCA study.

VeriFlora® certified producers must conduct a meeting at least once a year with community representatives. The agenda is communicated and an opportunity for discussions related to concerns on current operations and opportunities provided.

For its first ISR Report, the CSPMA (with the participation of the Science Coordinating Committee) has identified its main stakeholders (see table 4).

### Next step – Dialogue with stakeholders

CSPMA will:

- Identify stakeholders more precisely, build bridges between them and conduct a stakeholder consultation for the next ISR Report.

### Table 4 – Stakeholders – an overview

**Aboriginal and local communities**

**Consumers**
- Commercial growers
- Greenhouse operators
- Retailers
- Gardeners

**Members**
- Peat moss producers
- Bag suppliers and affiliated members

**Environmental interest groups**
- Duck Unlimited Canada
- Canadian Wildlife Federation
- International Union for Conservation of Nature (IUCN)
- The Canadian Business and Biodiversity Council (CBBC)

**Governments (at the international, national and provincial levels)**
- Environment Canada
- Natural Resources Canada
- Canadian Food Inspection Agency
- Various government committees

**International organizations**
- International Peat Society (IPS)
- Food and Agriculture Organization of the United Nations (FAO)
- Intergovernmental Panel on Climate Change (IPCC)

**Natural resource industries**
- Forest Product Association of Canada (FPAC)
- Hydro-Québec

**Scientific community**
- The Peatland Ecology Research Group (PERG), including researchers from Laval University, McGill University
- University of Waterloo and University of Calgary
- University of Guelph
- Coastal Zone Research Institute (CZRI)

# 4.3 CONFORMITY AND BEST PRACTICES

**Businesses and organizations are expected to act in compliance with legislation. One of the responsibilities of the CSPMA is to be responsive and provide advocacy in order for its members to apply, respect and be accountable to the laws under which they operate. The association also supports the adoption of best and leading practices that go beyond legal compliance. To do so, the CSPMA works and collaborates at the provincial, national and international levels with producers, governments and institutions to support them in the application and development of laws, regulations, policies, standards and certifications for the industry.**

## REGULATORY COMPLIANCE

Each individual peat moss producer is responsible for the application and the respect of the provincial and national legislations under which it operates. However, the CSPMA provides support to industry through regulatory monitoring and representation in various government committees at national and provincial levels.

The CSPMA is also in charge of representing the Canadian peat moss industry at the international level to ensure – in collaboration with governments – its compliance with the various international conventions covering peat moss production activities. The CSPMA is also actively involved in the discussions surrounding the elaboration and application of these international initiatives.

## INTERNATIONAL CONVENTIONS AFFECTING THE PEAT MOSS INDUSTRY – EXAMPLES

The United Nations Framework Convention on Climate Change (UNFCCC) gives guidelines to national agencies (as Environment Canada) to account for GhG emissions by sources and removals by sinks. This is based on the "Wetland Drainage and Rewetting" (WDR) activity under Article 3.4 of the Kyoto Protocol. The article indicates that Annex I countries such as Canada can use peatland rewetting to meet their emissions reduction targets. **With this decision, peatlands and organic soils are recognized by the international climate change organizations as an accountable factor and potential target for mitigation action.**

The Intergovernmental Panel on Climate Change (IPCC) also produced guidelines that are currently in use under the UNFCCC and the Kyoto Protocol. The IPCC recently released the "Supplement to 2006 IPCC Guidelines for National GhG Inventories: Wetlands". This supplement is intended to help parties in their annual reporting to the UNFCCC of greenhouse gas emissions and removals from the land use sector. **The CSPMA, via its Science Coordinating Committee, benefits from the consulting opportunity to submit comments on this issue.**

The National Biodiversity Strategies and Action Plans (NBSAP) are the principal instruments for implementing the Convention on Biological Diversity (CBD) at the national level. The Convention requires countries to prepare a national biodiversity strategy (or equivalent instrument) and to ensure that this strategy is mainstreamed into the planning and activities of all sectors whose activities can have an impact (positive and negative) on biodiversity. The business communities have also been engaged to advance the achievement of the CBD. In Canada, the CBBC has been established to work in support of the Canadian objectives for biodiversity. **The Canadian peat industry is contributing to this initiative by providing a Peat Industry Business Case Study and as a member of the Board of Directors of the CBBC.**

## INDUSTRIAL COMPLIANCE

CSPMA participated in standard development for the VeriFlora® certification. As of now, at least 65% of the peat harvested in Canada is VeriFlora® certified.

### Next steps – Conformity and best practices

CSPMA will:

- Aim for national consistency of legislation affecting the peat industry and the peatland resource.
- Stay engaged in the development of international conventions, continue informing and mobilizing our members on these developments and engage industry colleagues where appropriate.
- Target a 75% level of VeriFlora® certified Canadian peat harvested.
- Keep supporting best practices and certification among members while monitoring the adequate tools for sustainability by referring to the issues covered within this ISR Report.

# 5 - ENVIRONMENTAL STEWARDSHIP

**Since the late 1980s, the Canadian peat moss industry has placed environmental stewardship in the forefront of its strategic planning, research and activities. Protecting ecosystems and rehabilitating bogs are considered essential to responsible management and sustainable development of the sector. The CSPMA has developed policies to ensure appropriate harvesting and restorative actions by its members and the adoption of best environmental sustainability practices.**

**As of now, all CSPMA members have taken an official stand and engagements on environmental and social responsibility issues. Moreover, 50% of the CSPMA members have obtained the VeriFlora® certification (which represents at least 65% of the production).**

**In 2010, a first environmental life cycle assessment (E-LCA) was conducted in order to evaluate rigorously the environmental impacts of peat moss production (CIRAIG 2010). The report was updated in 2012 (CIRAIG and Groupe AGÉCO, 2012). The assessment covered all operations taking place during production, transformation and distribution stages of the horticultural sphagnum peat moss life cycle. Impacts on atmosphere, water and biodiversity were considered as well as peatland management and resource and energy uses. The scope of the study excluded the uses and end of life phases. So-called secondary functions of the system namely by-products and sub-products of the peat were also excluded of the assessment.**

**As previously stated, the E-LCA results, built on 20 years of environmental research in peat moss production are widely used to document this ISR Report.**

# 5.1 ATMOSPHERE

**The industry is aware that the sphagnum peat moss production activities generate greenhouse gases and other pollutants. The 2012 life cycle assessment reveals that peat harvesting, processing and distribution create emissions due to changes in land use, use of machinery, transportation and peat decomposition. The emissions released into the air can have an impact on the environment as well as on human health.**

## GREENHOUSE GASES (GHG)

- Over its life cycle, the production of peat moss in Canada generates GhG at a level of 86.4 kg of $CO_2e/m^3$ of peat.
- Over half the emissions are related to the non-restoration of many older non-rehabilitated peat fields (58% of total GhG emissions). It appears that during the decomposition of residual non-rewetted peatlands, oxidation of organic matter releases $CO_2$ direct emissions.
- Distribution and on-site transportation of peat to the point of sale also generates GhG emissions (13.5% of total GhG emissions).
- Restoration practices reduce emissions and even revert them to the point that restored peatlands remove $CO_2$ from the atmosphere (sink function).
- The VeriFlora® standard requires producers to measure and manage GhG emissions.

### Next steps – Greenhouse gases emissions

CSPMA will:

- Continue collaborating on an ongoing basis with provincial, national and international organizations to assess and manage GhG emissions.
- Support members to adopt GhG emissions calculation tools and to achieve GhG reduction targets by:
  - Continuing to be engaged/invest in research in GhG emissions, mitigation measures and climate change;
  - Supporting restoration as a best management practices at the closure of production.

## AIR QUALITY AND HUMAN HEALTH IMPACTS

- Over its life cycle, peat moss production emits NOx, which are gases produced during combustion that have a negative prevalence on the respiratory system. These emissions are largely due to transportation from the harvesting site.
- VeriFlora® certification calls upon producers to minimize air emission impacts during harvesting process.

### Next step – Air quality and human health impacts

CSPMA will:

- Support best practices and development of clean air technology.

# 5.2 WATER

**Bogs and fens are an integral part of surrounding landscape ecosystems and they play a role in hydrological balance. Draining a section of the peatland for harvesting may lower the perched water table in the bog. Also, the outflow of the draining system must be managed to limit the amount of peat sediment that leaves the site.**

## WATER QUANTITY AND QUALITY

- According to the E-LCA, the drainage of the peatland for peat harvesting represents 75% of the impact on water while the remaining 25% pertained to life cycle water uses attributed to other activities such as transportation, packaging and road construction.
- Different minerals already present in the environment can be recirculated into the drainage water and suspended particles can have an impact in the water.
- Transportation and harvesting are responsible for 68% of "aquatic acidification" LCA category of impact due to the use of equipments.
- Drainage, hydrology and water quality plans are compulsory for all VeriFlora® certified producers. All certified peatlands have water quality management programs in place, commonly with two-stage sedimentation basins, specific water quality goals that exceed governmental requirements and, in many cases, use land treatment to avoid water contaminants or water quality degradation. VeriFlora® certified producers maintain auditable records of water quality monitoring that are based upon a written protocol for water sampling and analysis.

### Next steps – Water quantity and quality

CSPMA will:

- Support research and improve knowledge on hydrology in general (water quantity and quality).
- Help peat moss producers improve water quality namely through investment in water quality research and development projects.

# 5.3 PEATLAND MANAGEMENT

**Essential ecological characteristics are needed for accumulation of peat and development of peatlands. These special lands require appropriate management. A responsible peatland management strategy aims to provide future viability of the peatland ecosystems even if it may be decades away. Such strategy implies developing and adopting environmentally sound harvesting methods, restoring peatlands at the end of operations and minimizing the sources of pollution through production and distribution stages.**

## ORGANIC MATTER CHARACTERISTICS

- Peat is characterized by a high content of organic matter and carbon (50% of its weight).
- There are many types of peat, depending on several factors such as the type of vegetation that formed it, the climatic and hydrological conditions and the degree of decomposition. Peat at the top of the deposit is more fibric and less decomposed. At the opposite, peat at the bottom of the deposit is more decomposed.
- The quality of peat in the harvested fields is frequently assessed in order to characterize the type of horticultural peat that will be a component of growing media (stock valuation).

## CHEMICAL QUALITY

- Peat has a low nutrient content. It also has a good cation exchange capacity (CEC), which can retain the minerals and release them slowly (to avoid leaching of fertilizers).
- Peat is tested periodically by producers to guarantee chemical quality.

## CONSERVATION AND AFTER-USE

- According to data collected in 2011, 68% of sites closed before 2010 were not yet restored, while 20% were under restoration and 12% were in afforestation process (after tree planting) (CIRAIG and Groupe AGÉCO, 2012). Restoration is mostly done by the moss layer transfer techniques developed through research done over the past 20 years with the PERG (Quinty & Rochefort, 2003).
- VeriFlora® certified producers establish a restoration/rehabilitation plan for all harvested areas. For VeriFlora® certified producers, restoration has become mandatory for all bogs open after 2000.
- Companies of the peat moss sector are financing the Industrial Research Chair on Peatland Management for a new five-year commitment period (2013-2018). The research program of this third term focuses on biodiversity, hydrology and GhG emissions in natural, harvested and restored peatlands.
- A joint study on peatland restoration was produced by Environment Canada.
- Other research projects related to conservation and after-use have also been undertaken at provincial levels or by specific companies.

## PHYSICAL STRUCTURE AND ROAD MANAGEMENT

- When opening a peatland, roads are constructed to allow transportation of the peat moss to the factory. These roads are built so as to reduce environmental impacts, for example by using natural materials from the site (tree roots and residue from the peat screening).

### Next steps – Peatland management

CSPMA will:

- Support the VeriFlora® certification process within the membership base.
- Compile more detailed statistics on the current areas of peat production and post-harvested peatlands (restoration, afforestation, etc.).
- Pursue restoration investigation studies with research organizations and the federal government.
- Ensure that restoration is widely conducted and that best practices are adopted by members. To do so, the aim is to increase the number of VeriFlora® certified producers and to collaborate on various research restoration and reclamation projects with the Research Chair and others.
- Investigate and engage the industry in identifying restoration and reclamation practices following post-harvest activities and to support restoration as required under provincial legislation.

# 5.4 BIODIVERSITY

**Peatlands are wetlands. These ecosystems have a specific biodiversity. Producers are more and more aware of the necessity of preserving this value. Peatlands benefit from a high level of awareness for conservation at the international level. In Canada, conservation and restoration issues are at the forefront of industry planning. Recently, Canadian peat industry companies reinvested $2.5 million dollars in a five-year research program (2013-2018) that includes biodiversity objectives.**

## SPECIES AND HABITAT BIODIVERSITY

- Restoring functional ecosystems brings back bog specific biodiversity.
- Specific research projects also look at species and habitat biodiversity. For example:
  - Restoration of peatland pools which are regarded as hotspots for biodiversity;
  - Restoration of peatland margins (lagg habitat);
  - Propagation and establishment of specific and rare plant species (e.g. sedges, orchids).
- The election of the CSPMA's President on the board of directors of the Canadian Business and Biodiversity Council (CBBC) for a one year term (2012 – 2013) is a positive recognition of actions taken regarding preservation issues.

## ECOSYSTEM INTEGRITY

- Restoration programs are based on the ability to re-establish the natural ecosystem processes that lead to the development of functional ecosystems. VeriFlora® certified peatlands have specific goals for restoration or rehabilitation of both the ecosystem structure and functioning of the wetlands. Moreover, certified producers are required to set aside at least 10% of their operations as donor sites for restoration.
- The PERG research program (2008-2013) includes the characterization of ecological functions of restored peatlands. The upcoming PERG program (2013-2018) will include extensive investigations into bog and fen biodiversity, hydrological processes and GhG exchanges.
- The E-LCA conducted in 2012 assessed ecosystem integrity with criteria of water ecotoxicity, terrestrial ecotoxicity and eutrophication. Ecotoxicity impact is mainly due to the transport activity (74%) because of the heavy metals emission (zinc and aluminum).

## THREATENED SPECIES

- In Canada, several species are classified as threatened species (under national and/or provincial laws), some of them occurring in peatlands. For instance, about a dozen of the plants listed as threatened in the *Loi québécoise sur les espèces menacées et vulnérables* can be found in peatlands in Québec (e.g. *Valerianna uliginosa, Parnassia glauca*). These species have a high protection status.
- Producers are compliant with the national and provincial laws on threatened species and conduct when required inventory of the threatened species that can be found on their peatlands and affected by their activities. Mitigation measures can be established when needed.

### Next steps – Biodiversity

CSPMA will:

- Support biodiversity research with member's participation, namely within the Industrial Chair and Cooperative Research Development (NSERC) research program (2013-2018) and other research initiatives.
- Continue to participate on the CBBC board and committee meetings related to biodiversity at the international level (Convention on Biological Diversity) and at the national level (Canadian Biodiversity and Business Council).
- Identify research opportunities related to ecosystem goods and services, an emerging field in science and policy.
- Work collaboratively with federal agency responsible for the Species at Risk Act (SARA) and other provincial agencies when appropriate.

# 5.5 MATERIAL RESOURCES AND ENERGY

**As in all human activities, energy consumption in the peat industry is directly related to GhG emissions and climate change. Furthermore, processing and packaging operations generate a significant amount of waste. The VeriFlora® standards set requirements regarding both the consumption of energy and the use of material resources.**

## ENERGY EFFICIENCY

- Energy consumption was evaluated in the 2012 E-LCA at 1660 MJ/m³ of peat. The major part is due to moving harvested peat off the bog as well as oil and natural gas use.
- Distribution, including transportation from harvesting sites to transformation plants, accounts for 12% of the total amount of energy used, mainly due to gas-oil consumption.
- VeriFlora® certified producers are compelled to have procedures to monitor and reduce energy consumption of their operations. For example, certain producers monitor tractor use specifically in order to reduce fuel consumption.

## MATERIAL CONSERVATION AND INTEGRATED WASTE MANAGEMENT

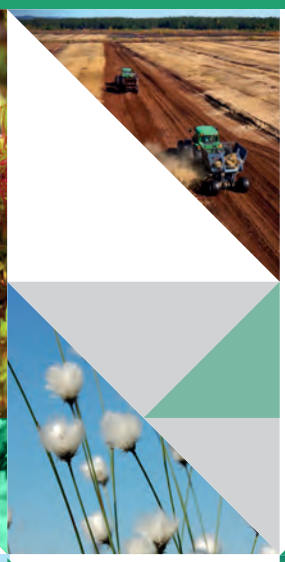
- Handlers are responsible for processing, blending, packaging and distributing the product to users. VeriFlora® certified handlers are requested to provide a quantitative annual report detailing the volume or weight of residual materials from industrial or construction use. They report on the proportion of waste that is recycled, re-used or sent to the landfill. Through 2013 a reduction in over 7% of packaging materials, such as shrink wrap has been achieved, primarily through the use of thinner gauge plastics and optimization of strength and size of woven materials and sewing (Dr. M. Keyes, SCS-VeriFlora Certification, personal communication).

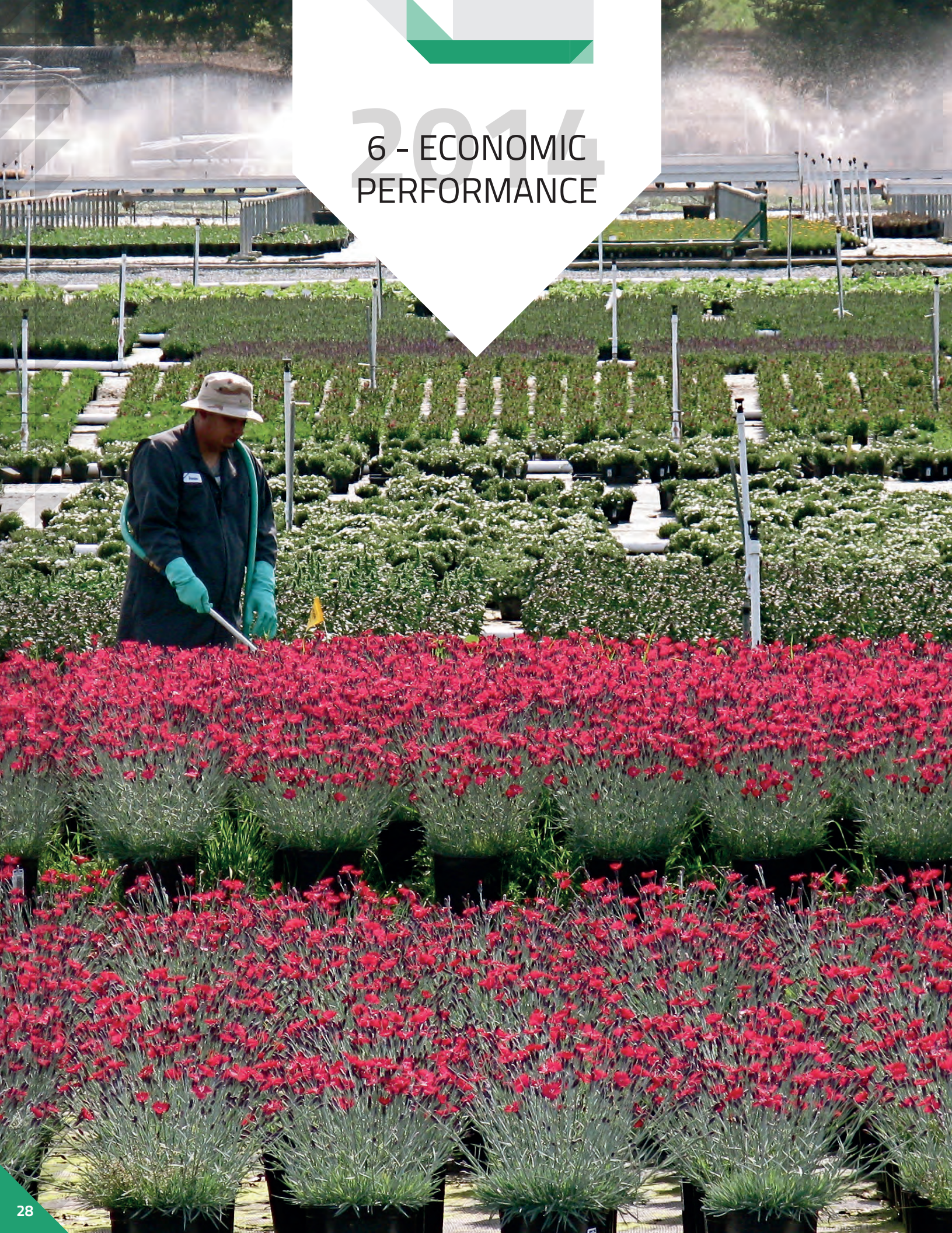
### Next steps – Material resources and energy

CSPMA will:

- Continue to support energy efficiency practices. The integration of efficient equipment is identified as a good solution to improve energy consumption.
- Support companies to conduct training on resource conservation and waste management.





# 6 - ECONOMIC PERFORMANCE

**Estimated at $337 million dollars, the peat harvested in Canada contributes to the production of horticultural products valued at $568 million dollars. As a whole, the peat industry provides more than 3,000 direct and indirect jobs to Canadians all across the country (CIRAIG and Groupe AGÉCO 2012).**

# 6.1 RESEARCH INVESTMENTS

**Innovation is essential to ensure the sector's long term competitiveness. Research projects contribute to that goal. CSPMA is very active in supporting research at various levels. The producers themselves put research and innovation at the top of priorities in order to maintain or gain competitive advantage.**

## RESEARCH INVESTMENTS

- From 1996 to 2013, $5 million dollars of industrial support has been invested to find ways to restore bogs when harvesting is completed.
- CSPMA invested 8.7% of its revenue in research on national projects in 2012.
- The CSPMA board has endorsed a new five year program (2013-2018) of $2.5 million dollars through the Industrial Chair and Cooperative Research Development (NSERC) funding program and involving five universities across Canada.

### Next steps – Research investments

CSPMA will:

- Support research in areas of environmental interests and other areas that impacts the peat moss industry.
- Support research on peat moss management and industrial aspects.
- Develop new partnerships with research organizations and governmental agencies.

# 6.2 SUPPLY CHAIN MANAGEMENT

**An efficient supply chain is designed to provide organizations with all the inputs and services they need to perform their production activities. In this respect, relationships with suppliers are crucial. The social life cycle assessment (S-LCA) of the peat moss sector conducted in 2012 looked into this issue.**

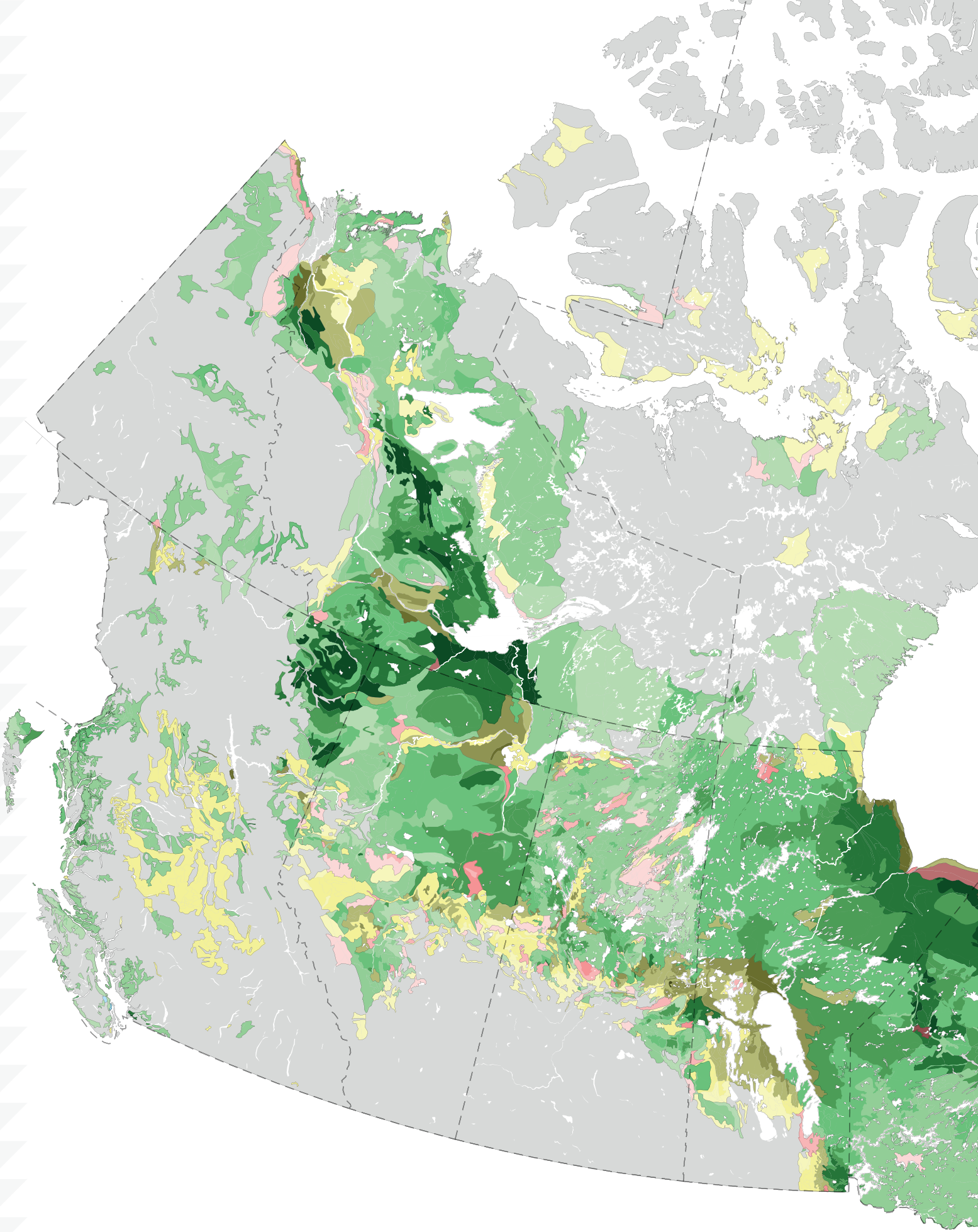
## SUPPLIERS AND PARTNERS RELATIONSHIP

- In recent years, the number of partnerships developed by the peat moss producers in Canada and abroad has significantly increased.
- The S-LCA indicates that producers collaborate adequately with their suppliers and their substrates suppliers in particular. Given that peat moss companies have not yet integrated social and environmental criteria in their purchasing policies, the study recommends adopting formal responsible procurement policy to manage more efficiently these risks.

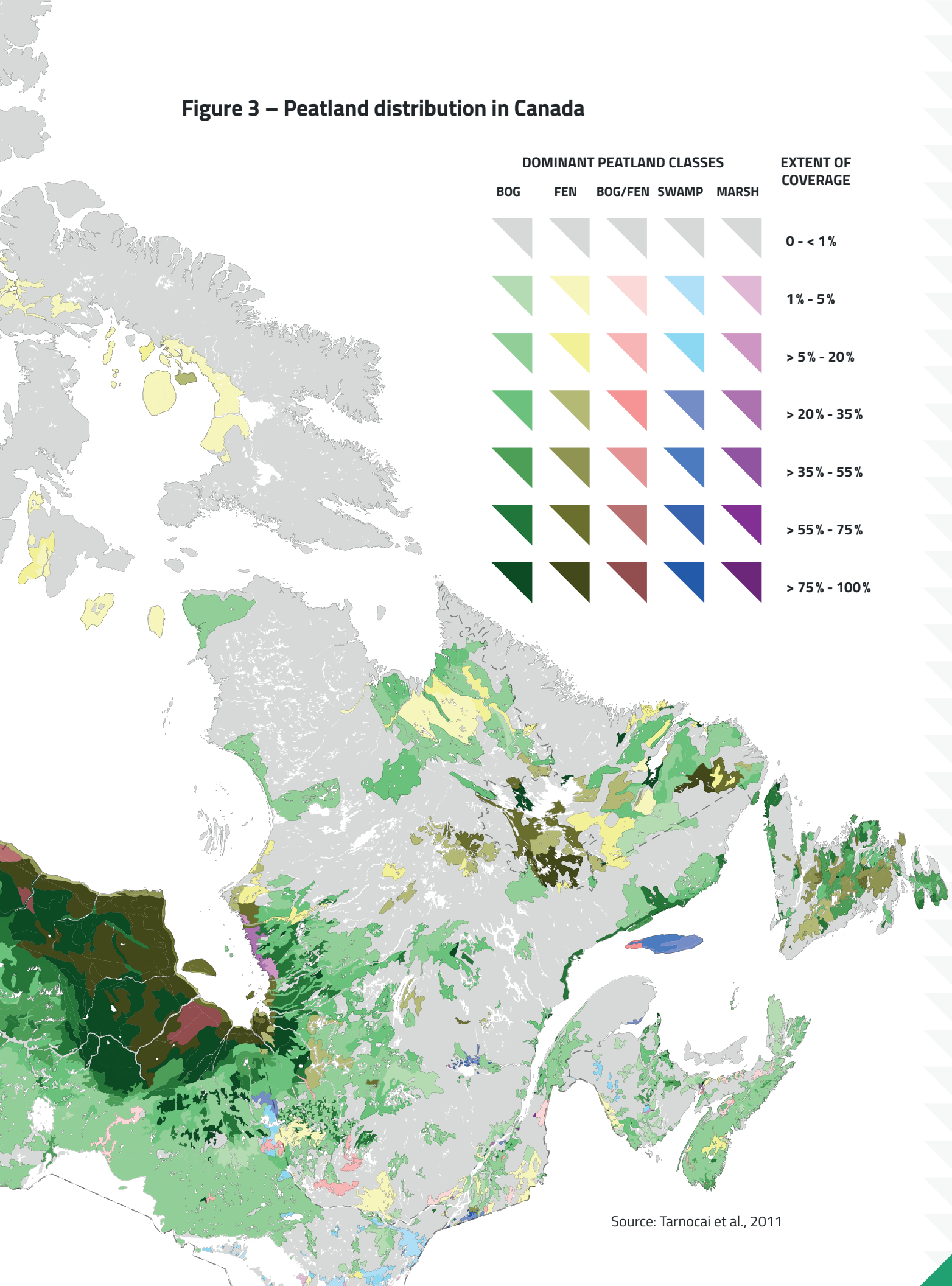
### Next steps – Supply chain management

CSPMA will:

- Follow the S-LCA recommendation to stimulate producers to adopt a sustainable purchasing policy among its members.
- Share with other substrate producers the need to understand the environmental and social life cycles of their products in order to ensure sustainability and responsible management of all substrate resources.

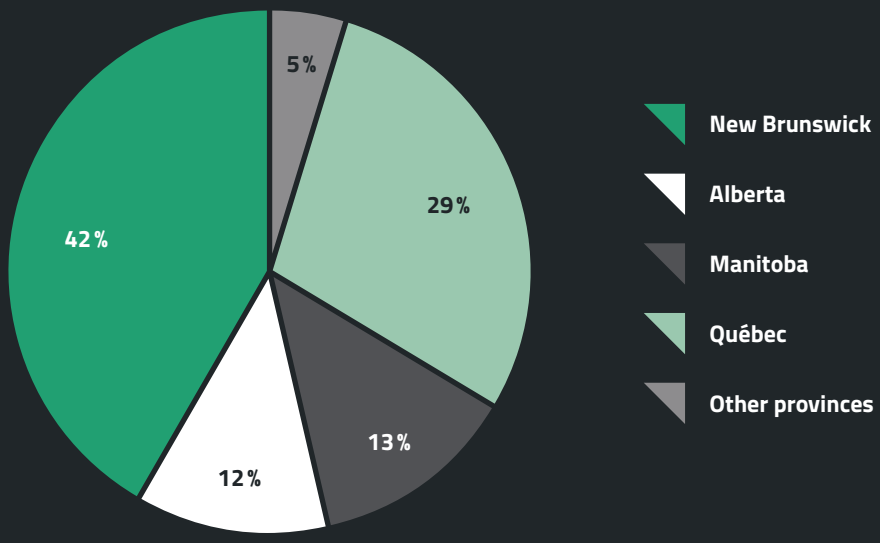


## Figure 3 – Peatland distribution in Canada




Source: Tarnocai et al., 2011

## Figure 4 – Peat production in Canada, average 2008 to 2011




# 6.3 PRODUCTION CAPACITY

**In order to answer the market's demand for peat moss products in a long term perspective, a strategic management of the resource is required. Since harvesting peat on public lands requires an authorization delivered by provincial authorities, such responsibility entails them partly. Provincial authorities are in charge of managing peat resources and defining the sector's strategic orientations to foster the industry's development. The CSPMA works in collaboration with those authorities to define these orientations.**

## PRODUCTION AND DISTRIBUTION CAPACITY

- In Canada, peatlands represent 90% of the wetlands and cover approximately 113.6 million hectares. From that, 25,000 hectares have been or are currently harvested. This is less than 0.02% of the natural capital (Environment Canada, 2013).
- Sphagnum peat moss is harvested mainly for horticultural purposes in Canada. The situation is different elsewhere: 50% of world production is for energy use namely in countries such as Finland, Russia, Ireland, Sweden and, to a lesser extent, in Eastern Europe (USGS, 2012; IPS, pers. comm.).
- 1.14 million tons of peat is harvested on a yearly basis in Canada (Natural Resources Canada, 2011).
- Imports of sphagnum peat moss from Canada represent 97% of total United States imports and 85% of total Canadian production (USGS, 2012).

### Next steps – Production and distribution capacity

CSPMA will:

- Continue the relationship with provincial authorities in their definition of strategic directions for the sector to foster the industry's development.
- Promote the development of provincial responsible management strategies that incorporate responsible use/ restoration.

# 6.4 DEMAND MANAGEMENT

**It is important to understand client needs and foresee potential market developments. This allows companies to plan production and perhaps open new harvesting sites. The S-LCA assessed the businesses' behavior in regards to their clients and consumers.**

## CUSTOMER PROFILE AND FEEDBACK MECHANISM

- Peat moss products are mainly for professional growers, independent garden centers, wholesalers, manufacturers and large specialised chains.
- In order to be attentive to their evolving needs and demands, producers have at least one feedback mechanism (such as customer satisfaction survey).

### Next step – Demand management

CSPMA will:

- Continue to provide information about the use of the peat resources among consumers through improved electronic communications capability and traditional trade shows and communications media.

# 6.5 MARKET DEVELOPMENT

**All economic activities face market risks, such as price decrease or contraction of the demand. Continuous efforts to develop existing and new markets ensure economic resilience and mitigate market risks.**

## MARKET DEVELOPMENT SUPPORT

- Most Canadian peat producers have a good economic situation.
- In addition, trade challenges which are generated by concerns related to sanitary and phytosanitary issues need to be monitored and engaged in to protect current and future international markets.

### Next step – Market development

CSPMA will:

- Continue working with national and international agencies (for example, the Canadian Food Inspection Agency (CFIA) and the International Plant Protection Convention (IPPC)) to ensure protection of existing markets.

# 6.6 LOCAL ECONOMY

**Positive contribution of businesses to local, provincial and national economy expresses itself through jobs creation, regional economic growth and development of partnerships at various levels. The Canadian peat moss industry plays an important role locally and intends to remain an economic force in regions.**

## VALUE CREATION

- The economic impact of the peat moss industry in Canada in 2012 (CIRAIG and Groupe AGÉCO 2012) :
  - Direct GDP: $151.7 million dollars;
  - Direct production value: $337 million dollars;
  - Direct wage bill: $63.3 million dollars;
  - Employments (direct and indirect): 3,095;
  - It is interesting to point out that if a job created or lost in a rural area was transposed to an urban setting, the economic weight of the job is much higher. For instance, a job created in Bas-St-Laurent in Quebec is equivalent to 20 jobs in the Montreal area (ISQ 2012a; 2012b, and StatCan 2005).

## LOCAL PROCUREMENT

- Peat moss producers adopt local purchasing practices, but these are not yet formalized in policy or procedure.

### Next step – Local economy

CSPMA will:

- Document on a regular basis the regional and national economic impact of the peat moss industry.

# 6.7 PRODUCT INFORMATION

**Sphagnum peat moss is an organic matter. Producers use tools to ensure the quality of the production.**

## PRODUCT QUALITY AND TRACEABILITY

- Traceability systems are commonplace for all peatland producers. Lot numbers on barcodes and bills of lading facilitate customer service representatives to trace back any and all quality concerns to the specific bog, screening, blending facility.
- The VeriFlora® certification includes product quality and longevity.
- A number of producers (18%) have also attained the ISO 9001 quality management system certification.
- Producers who are certified VeriFlora® must comply with traceability requirements.

# 7 - WORKERS AND HARMONIOUS COHABITATION

**Consumer expectations have increased regarding sustainability issues. When purchasing a product or a service, many now take into consideration the social performance of businesses. They want to know: how the organization treats its employees, how the business takes part in the well-being of their community, etc.**

**The CSPMA understands that social concerns toward peat moss production are a critical issue for the industry. In the 2012 social life cycle assessment (S-LCA), the social performance of peat producers was documented. Best practices and hot spots were highlighted related to their stakeholders : workers, consumers, partners and suppliers as well as the community.**

# 7.1 WORKING CONDITIONS AND LABOR RIGHTS

**The S-LCA study concludes that overall, Canadian peat moss producers have a committed relation with their workers from a socioeconomic standpoint. Members, through the VeriFlora® standards, have become involved in promoting fair working conditions in the workforce. The performance here described is based on the S-LCA results as well as the VeriFlora® requirements.**

## WAGE LEVELS AND EMPLOYMENT RELATIONSHIP

- Most producers have a committed behavior regarding wage levels and benefits. For example, all producers interviewed for the S-LCA study paid employees more than the minimum wage.
- All VeriFlora® certified companies also have written HR policies and procedures published in easily accessible locations.
- Yet, actions could be taken towards formalizing human resources policies among non-certified members.

## CAPACITY BUILDING

- Producers see training as essential when adopting new methods or changing technology. Ongoing training improves competitiveness. The S-LCA shows that all producers offer a training program to new employees.

## EQUITY

- All VeriFlora® certified companies have a non-discrimination policy. The balance of the companies within the peat moss industry have an internal policy against discrimination.

### Next step – Working conditions and labour rights

CSPMA will:

- Monitor and, when necessary, comment and intervene on national issues related to labor rights and discrimination practices affecting the industry.

# 7.2 HUMAN HEALTH AND SAFETY

**Peat moss processing plants are challenging environments and health risks related to jobs where peat moss is handled are increasingly taken into account by the industry. The CSPMA is concerned by this issue and works in collaboration with the producers – who directly bear the responsibility to tackle that issue – to reduce these risks. The VeriFlora® standard imposes requirements in the areas of prevention, health and safety of workers.**

## PHYSICAL, PSYCHOLOGICAL AND SOCIAL HEALTH

- Producers demonstrated a committed behavior regarding health and safety condition. In practice, a majority of companies have health and safety training program for employees. Many have invested heavily in a large number of third-party professional training organizations. Most producers also have intervention plans and conduct preventive equipment maintenance.
- Fire prevention and emergency procedures are compulsory for VeriFlora® certified producers.
- Job risk analysis is also compulsory for VeriFlora®.

### Next steps – Human health and safety

CSPMA will:

- Support health and safety training practices among members.
- Support effort leading the identification of areas of improvement in health and safety such as the fire program through hot work permits and support improvements within the industry.

# 7.3 COHABITATION AND RELATIONSHIP WITH ABORIGINAL COMMUNITIES

**The social life cycle assessment clearly indicated that one of the challenges of the industry is to develop harmonious and sustainable relationships with local communities and with aboriginal people nearby. Peat moss operations are conducted in the vicinity of living areas. Production and transportation activities can cause negative impacts due to truck and dust. On-going dialogue between the producers and the communities is recommended in order to improve relationships with these stakeholders of the peat moss industry.**

## COHABITATION

- Producers have a committed behavior with their communities according the S-LCA study. In addition, CSPMA participates in many government and ministry committees to represent the peat moss industry.
- VeriFlora® certified companies are required to conduct stakeholder engagements.

## ABORIGINAL RELATIONSHIPS

- The emerging role of First Nations (FN) within Canada as part of resource management decision making and the "duty to consult and accommodate" will require the Association to identify and work with FN leaders, provincial and federal governments to determine consistent and effective communication mechanisms.
- Individual producers are also working to incorporate appropriate actions to address the challenges to FN consultation and dialogue.
- The industry invited speakers to their 2011 Semi-Annual meeting to outline the background and expectations for engagement from a legal, government and First Nations perspective.

### Next steps – Cohabitation and relationship with aboriginal communities

CSPMA will:

- Support industry in reviewing the challenges with the Aboriginal communities on leasing requirements as well as business structure and operations.
- Strengthen the Association's relationships with their stakeholders including environmental interest groups.
- Participate in the development of environmental research as it relates to the harvesting and use of peat moss.
- Support members who plan on conducting discussions with stakeholders.

# 8 - CONCLUDING REMARKS

**If you have any comments or questions regarding this report, please contact Paul Short, president of the CSPMA, or Stéphanie Boudreau, science coordinator of the industry.**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**It is our intent to provide an update report within three years on the successes achieved in meeting the commitments set up in this report.**

# GLOSSARY

**APTHQ:** Association des producteurs de tourbe horticole du Québec [Québec Peat Moss Producers Association]

**CBBC:** Canadian Business and Biodiversity Council

**CDB:** Convention on Biological Biodiversity

**CFIA:** Canadian Food Inspection Agency

**CSPMA:** Canadian Sphagnum Peat Moss Association

**CZRI:** Coastal Zone Research Institute

**EC:** Environment Canada

**E-LCA:** Environmental life cycle assessment

**FAO:** Food and Agriculture Organization

**FN :** First Nations

**GDP:** Gross domestic product

**GhG:** Greenhouse gas

**IPCC:** Intergovernmental partnership on climate change

**IPS:** International Peat Society

**ISR:** Industry social responsibility

**NSERC:** Natural Sciences and Engineering Research Council of Canada

**NBSAP:** National Biodiversity Strategies and Action Plans

**PERG :** Peatland ecology research group

**R&D:** Research and development

**SAFA:** Sustainability Assessment of Food and Agriculture Systems

**SCC:** Science coordinating committee of the CSPMA

**S-LCA:** Social life cycle assessment

**UNFCC:** United Nations Framework Convention on Climate Change

**WDR:** Wetland drainage and rewetting

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## WEBSITES


CSPMA website: www.peatmoss.com

APTHQ website: www.tourbehorticole.com

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