



# **USGBC Forest Certification Benchmark DRAFT for 4<sup>th</sup> Public Comment**

Created by the Materials and Resources Technical Advisory Group to indicate substantive requirements of forest certification systems in order to earn recognition in the LEED Green Building Rating System

Technical support provided by the Yale Program on Forest Policy and Governance

Approved by the LEED Steering Committee



2101 L Street NW,  
Suite 500  
Washington, DC 20037  
T: 202 828-7422  
F: 202 828-5110  
www.usgbc.org

## Introduction – Forest Certification Benchmark

The following USGBC Forest Certification Benchmark (“the Benchmark”) is a collection of criteria against which regional, national, and global forest certification systems will be evaluated to determine which gain recognition in the LEED green building certification system. The intention of this document is to allow USGBC to independently establish and transparently indicate its expectations of forest certification systems if they are to gain recognition in LEED. USGBC does not intend for this document to establish standards for forest management nor forest product transport.

The Benchmark is divided into four sections: “Governance,” to set requirements for certification systems membership, decision-making, and transparency; “Forestry Standards Substance,” to set requirements for the forestry practices certification systems require of their certified forests; “Chain-of-Custody & Labeling,” to set requirements for the chain of control over and labeling of an item from production to final sale; and “Accreditation & Certification Processes,” to set requirements for how certification systems accredit their certifiers and audit their certifications.

The Benchmark has been displayed for public comment three times prior to this draft. The major features of each public comment version are as follows:

- First Public Comment Draft (August – September, 2008) – The Benchmark is revealed with set of criteria a LEED-recognized certification system must entirely meet.
- Second Public Comment Draft (September – October, 2009) – The requirements of the Benchmark are separated into prerequisites and credits. Prerequisites must be met to gain recognition in LEED, whereas credits are met to distinguish the system from others and gain increasing weight in the associated LEED credits.
- Third Public Comment Draft (February, 2010) – Prerequisite and credit requirements in the Governance and Standards Substance are refined further.

For this fourth public comment period, the Benchmark has undergone particular revisions to address salient comments from the previous public comment period. First, the Governance section’s prerequisites and credits have been revised in order to mimic USGBC’s governance structures and processes as closely as possible, therefore expecting of forest certification systems the same that it expects of itself (while also acknowledging what are forestry-specific characteristics). Second, requirements in the Standards Substance, Chain of Custody, and Accreditation and Certification Processes sections have been refined. Third, those three sections newly provide a regulatory equivalent alternative compliance path, whereby a system may show compliance with any prerequisite or credit by documenting that it operates in jurisdiction with enforced regulations that meet the requirements. Last, all four sections have undergone some minor reformatting to specify credit names and remove unnecessary organizing headers.



2101 L Street NW,  
Suite 500  
Washington, DC 20037  
T: 202 828-7422  
F: 202 828-5110  
[www.usgbc.org](http://www.usgbc.org)

The proceeding pages include the following: prerequisite/credit number, prerequisite/credit name, revised requirements in black text, specific revisions in red text, and unchanged requirements in grey text. Please see the associated end notes for elaboration on some requirements and/or an explanation for a particular revision.

As with previous public comment periods, USGBC will specifically seek comments on the revisions for this public comment period. USGBC will collect general comments for those ideas outside the scope of the proposed revisions but is not obligated to consider them for additional revisions.

## USGBC Forest Certification Benchmark - Governance

| Prerequisite  | Credit                       |                                    |   |
|---|------------------------------|------------------------------------|---|
| For all endnotes in a particular benchmark requirement, please see the accompanying End Notes to Forest Certification Benchmarks. The endnotes contain background information on a requirement's revision, elaboration, or exclusion. |                              |                                    |   |
| Prerequisite/<br>Credit Number  | General-<br>Concept          | Policy Criteria<br>Name            | Requirement(s)  |
| Gp1   | <b>Balance</b>               | <b>Governing structure</b>         | The entity responsible for the certification scheme has governance structures that <del>1) are designed to</del> provide balanced representation of social, environmental and economic interests.   |
| Gp2   | <b>Balance</b>               | <b>Decision-making †</b>           | The entity responsible for the certification system has policies that <del>1) promote</del> require consensus-based decision-making.  |
| Gp3   |                              | <b>Balloting †</b>                 | The entity responsible for the certification scheme requires that balloted decisions be approved by at least 1/3 of the votes from representatives of environmental, social, and economic interests, respectively. <sup>1</sup>   |
| Gp4   | <b>Balance</b>               | Funding                            | The entity responsible for the certification system makes sources of funding publicly available. <sup>2</sup>   |
| Gp5   | <b>Public input</b>          | Consultation                       | The policies of the entity responsible for the certification system require that 1) the entity solicits input on draft standards and standards revisions from a broad range of environmental, social and economic interests; and 2) draft standards and standards undergoing revision are made available for public comment. <sup>1</sup> |
| Gp6   | <b>Transparency</b>          | <b>Public Communication</b>        | The entity responsible for the certification system 1) has developed clear policies on the avenues available for participation in system decision-making; and 2) makes all standards and policies publicly available. <sup>1</sup>  |
| Gp7   | <b>Continual-improvement</b> | Continual improvement of standards | The entity responsible for the certification system requires that certification standards be reviewed and revised, as needed, every five years or less.   |

## USGBC Forest Certification Benchmark - Governance

| Prerequisite/<br>Credit Number | <b>General-<br/>Concept</b>                        | <b>Policy Criteria<br/>Name</b>   | <b>Requirement(s)</b>  |
|--------------------------------|--|---|--|
| <b>Gp8</b>                     | <b>Openness</b>                                    | <b>Organizational<br/>type</b>  | The entity responsible for the certification system is a membership-based organization open to all organizations and individuals who demonstrate commitment to the system's guiding principles.  |
| <b>Gp9</b>                     | <b>Dispute resolution</b>                          | <b>Dispute resolution<br/>for standards-<br/>writing</b>                | The entity responsible for the certification system has developed formal appeals procedures that are applicable to the standard-setting process.   |
| <b>Gc1</b>                     | <b>Compliance with<br/>international<br/>norms</b> | <b>Compliance with<br/>international<br/>normative<br/>institutions</b> | The entity responsible for the certification system has governance structures and procedures that are consistent with ISO and/or ISEAL codes of good governance or their equivalent.   |
| <b>Gc2</b>                     | <b>Openness</b>                                    | <b>Establishment of<br/>governing body</b>                              | The governing body of the entity responsible for the certification system is elected by the system's membership. <sup>3</sup>  |
| <b>Gc3</b>                     | <b>Openness</b>                                    | <b>Accessibility to<br/>diverse ownership<br/>types</b>                 | The entity responsible for the certification system has standards and procedures that allow small-scale and/or low intensity operators equitable access to markets for certified forest products, and/or systems have developed policies or other measures to improve small producer market access. <sup>1</sup> |
| <b>Gc4</b>                     | <b>Balance</b>                                     | <b>Balloting II</b>   | The entity responsible for the certification scheme requires that balloted decisions be approved by at least a majority of the votes from representatives of environmental, social, and economic interests, respectively. <sup>1</sup>   |
| <b>Gc5</b>                     | <b>Public input</b>                                | <b>Level of standard-<br/>setting</b>                                   | The entity responsible for the certification system has developed sub-national indicators based on balanced local stakeholder input (see other governance benchmarks for a definition of "balanced" input).  |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite  | Credit                                  |          |                    |  |
|---|---|----------|--------------------|--|
| <p style="color: red;">Certification systems may show compliance with any prerequisite or credit by documenting that the jurisdiction in which they certify forest management has enforced regulations that meet the requirements.</p> <p>For all endnotes in a particular benchmark requirement, please see the accompanying End Notes to Forest Certification Benchmarks. The endnotes contain background information on a requirement's revision, elaboration, or exclusion.</p> |   |          |                    |  |
| Prerequisite/<br>Credit Number  | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name | Requirement(s)   |
| <b>Forest extent</b>  |   |          |                    |  |
| Sp1   |   |          | Forest extent      | Certification systems prohibit the conversion of forest to another land use (see corresponding end note), except in those cases where such conversion: 1) occurs on a very limited portion of the forest management unit; 2) does not occur in forests of special conservation value; and/or 3) conversion enables clear long-term conservation benefits. <sup>4</sup> |
| Sc1   |   |          | Carbon storage     | Certification system standards explicitly encourage forest managers to calculate the net carbon uptake of forest management and consider this information when developing forest strategies (including such activities as participation in larger-scale projects, monitoring forest carbon, and/or carbon certification). <sup>5</sup>                                 |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name                           | Requirement(s)  |
|--------------------------------|---|----------|--|---|
| <b>Biodiversity</b>            |   |          |  |   |
| <b>Landscape</b>               |   |          |  |   |
| <b>Sp2</b>                     |   |          | <b>Forests of special conservation value</b> | <p>Certification systems require the identification and maintenance and/or enhancement of the special attributes of forests of special conservation value. Such forests include those that 1) contain globally, regionally or nationally significant concentrations of biodiversity; 2) represent rare ecosystem types; 3) provide critical environmental services; and/or 4) are critical to providing the basic needs or traditional cultural identity of local communities. Appropriate to the scale and intensity of forest management, identification of these forests involves consultation with stakeholders and experts. Information on conservation measures is one of the pieces included in a publicly available audit report.</p> |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name   | Requirement(s)  |
|--------------------------------|---|----------|--|---|
| Sp3                            |   |          | Protected areas<br>(non-special value<br>forests)                        | Certification systems require the protection of representative samples of existing ecosystems in their natural state, as appropriate to the scale and intensity of forest management and uniqueness of the affected resources. <sup>6</sup>   |
| <b>Ecosystem diversity</b>     |   |          |  |   |
| Sp4                            |   |          | Ecosystem<br>structure, function<br>and forest<br>successional<br>stages | Certification systems require the maintenance and/or restoration of the structure, function, and composition of forest ecosystems within the range of natural variability. Appropriate to the scale and intensity of forest management, this includes ensuring that management within the forest unit aids in the maintenance and/or restoration of representative samples of forest successional stages, and the range of naturally occurring species, across the broader forest landscape. It also includes the provision of key habitat features for the conservation of biodiversity, and the protection of soil and water resources. (Note: This is a core benchmark. All of the other environmental prerequisites/credits, Sp1-Sp16 and Sc1-Sc10, serve to elaborate upon the concepts contained in this benchmark). <sup>7</sup> |
| Sp5                            |   |          | Old growth I   | Certification systems in the U.S. and Canada require that the current abundance of old growth trees and old growth stand structure are maintained across the landscape, although the location of old growth stands may change over time. systems operating in these countries provide a definition of old growth forests that is regionally appropriate.  |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name               | Requirement(s)   |
|--------------------------------|---|----------|----------------------------------|--|
| Sp6                            |   |          | Plantations                      | <p>Certification systems prohibit the certification of plantations that were converted from natural forest after 2009 unless the current owner is not responsible for their conversion. Exceptions are allowed where: 1) conversion occurs on a very limited portion of the forest management unit; 2) conversion does not occur in forests of special conservation value; 3) conversion enables clear long-term conservation benefits; and <del>for</del> 4) there are demonstrated efforts, guided by long-term planning, to restore the plantation area to natural forest conditions. For this purpose, the definition of plantation is consistent with the Food and Agriculture Organization's definition for the 2005 Forest Resources Assessment. Certification systems require that management of plantations that meet the above pre-requisites employs a precautionary approach that adheres to all other certification requirements to the degree necessary to 1) support long-term plantation health and productivity and 2) support the movement of native species across the broader landscape.<sup>8</sup></p> |
| Sc2                            |   |          | Old growth II                    | <p>Certification systems (worldwide) require that the current abundance of old growth trees and old growth stand structure are maintained across the landscape, although the location of old growth stands may change over time. These requirements are accompanied by regionally appropriate definitions of old growth.</p>   |
| Sc3                            |   |          | Tree/snag/woody debris retention | <p>Certification systems require retention of stand-level wildlife habitat elements (e.g. snags, nest trees, etc.).<sup>9</sup></p>  |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number    | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name                              | Requirement(s)  |
|-----------------------------------|---|----------|---|---|
| <b>Species, genetic diversity</b> |   |          |   |   |
| Sp7                               |   |          | <b>Species diversity</b>                        | Certification systems require the maintenance and/or restoration of habitat diversity as needed for the conservation of native species of flora and fauna.  |
| Sp8                               |   |          | <b>Species at risk</b>                          | Certification systems require that forest managers assess their properties for the presence of threatened and endangered species and, where present, develop and implement a plan to protect their habitat. <sup>11</sup>   |
| Sp9                               |   |          | <b>Exotics</b>                                  | Certification systems require control and monitoring of the use of non-native (i.e. "exotic") species in order to avoid adverse environmental effects. The use of non-native species on a large scale is allowed only when it has been adequately demonstrated that they are non-invasive and do not have significant adverse impacts on native ecosystems. |
| Sp10                              |   |          | <b>Genetically-modified organisms (GMOs) I</b>  | If certification systems allow for the use of genetically-modified organisms, they require following or using risk assessment per Annex III of the Cartagena Protocol of the Convention on Biodiversity.  |
| Sc4                               |   |          | <b>Genetically-modified organisms (GMOs) II</b> | Certification systems prohibit the use of genetically modified organisms.   |
| Sc5                               |   |          | <b>Biotechnology</b>                            | Certification systems require that the use of biotechnology is consistent with a "precautionary approach" and is based on sound science and appropriate field trials.   |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number                         | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name                               | Requirement(s)   |
|--|---|----------|--|--|
| <b>Forest health</b>                                   |   |          |  |  |
| <b>Natural disturbance (ex. Pests, diseases, fire)</b> |   |          |  |  |
| Sp11   |   |          | <b>Management of<br/>Natural<br/>Disturbance</b> | Certification systems require the monitoring and maintenance of the health and vitality of forest ecosystems, with consideration for the naturally-occurring role of fire, pests and other natural disturbances. <sup>13</sup>   |
| Sp12   |   |          | <b>Chemical use</b>                              | Certification systems state a preference for natural methods, such as integrated pest management, to control plant and animal pests and diseases. It is required to minimize* the use of chemicals, using least-toxic and narrowest-spectrum pesticides** necessary to achieve management objectives. Use only pesticides registered for the intended use and applied in accordance with all label requirements. Chemicals use must be in accordance with all applicable laws. <sup>14</sup> |
| <b>Productive functions</b>                            |   |          |  |  |
| <b>Sustainable production</b>                          |   |          |  |  |
| Sp13   |   |          | <b>Environmental<br/>services I</b>              | Certification systems require the recognition, maintenance and, where appropriate, enhancement of the value of environmental services provided by forests such as biogeochemical cycling, the protection of water supplies, and the conservation of wildlife and fisheries.  |
| Sp14   |   |          | <b>Reforestation I</b>                           | Certification systems require that forest managers reforest in a timely manner. <sup>15</sup>  |
| Sp15   |   |          | <b>Soil productivity</b>                         | Certification systems require that forest management maintain or enhance soil productivity. <sup>16</sup>  |
| Sc6  |   |          | <b>Timber production</b>                         | Certification systems require that timber harvest levels are sustainable over periods of ten years or less.  |
| Sc7  |   |          | <b>Non-timber forest<br/>products</b>            | Certification systems require that the rate of harvest of non-timber forest products does not exceed that which can be sustained over the long term. <sup>17</sup>   |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number  | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name  | Requirement(s)   |
|---------------------------------|---|----------|---|--|
| Sc8                             |   |          | Environmental<br>services II                                | Certification systems encourage forest managers to consider the full range of environmental services forests provide and explore alternative markets for environmental services. <sup>18</sup>   |
| Sc9                             |   |          | Reforestation II  | Certification systems require that reforestation meets targets that have been established, through credible sources, for stocking levels and time frames based on forest type.   |
| <b>Protective functions</b>     |   |          |   |  |
| <b>Soil and water resources</b> |   |          |   |  |
| Sp16                            |   |          | Riparian<br>protection                                      | Certification systems require that forest management protects the structure and function of riparian areas. To this end, systems require the observance of state-recognized Best Management Practices where they exist. In areas without relevant regulations or Best Management Practices, systems require the development of guidelines for the protection of riparian areas and wetlands. <sup>19</sup> |
| Sp17                            |   |          | Physical<br>infrastructure<br>(roads, skid trails,<br>etc.) | Certification systems require the minimizing of damage to forest ecosystems resulting from construction of roads, skid trails and other physical infrastructures. Road planning and/or road management programs are developed appropriate to the scale and intensity of forest management.   |
| Sc10                            |   |          | Soil protection   | Certification systems require that forest management minimize and mitigate disturbance and damage to soil resources.   |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name       | Requirement(s)   |
|--------------------------------|---|----------|--------------------------|--|
| <b>Socio-economic</b>          |   |          |                          |  |
| <b>Local communities</b>       |   |          |                          |  |
| Sp18                           |   |          | <b>Community benefit</b> | Certification systems require the recognition and respect of the traditional and legal rights of local communities. They also require, appropriate to the scale and intensity of forest management, the promotion of the long-term health and well-being of communities within or adjacent to the forest management area. This includes the recognition and respect of the traditional and legal rights of indigenous peoples to their lands and resources. <sup>21</sup> {Note: This is a core benchmark that outlines a broad goal of sustainable forest management. Sp18-Sp28 and and Sc11-Sc20 are all of relevance in meeting this goal.} |
| <b>Labor</b>                   |   |          |                          |  |
| Sp19                           |   |          | <b>Right to organize</b> | Certification systems require observance of fair labor practices across all operations.  |
| Sp20                           |   |          | <b>Wages</b>             | Certification systems require compliance with all applicable wage laws.  |
| Sp21                           |   |          | <b>Compensation</b>      | Certification systems require that local people are given opportunities to register grievances, without threat of reprisal, and that compensation be provided for loss of, or damage to, legal and customary rights, property, resources, or livelihoods. Adequate provision of such opportunities may involve informal communications or formalized complaint mechanisms depending on such factors as existing legal frameworks and the scale and intensity of forest management. <sup>22</sup>   |
| Sp22                           |   |          | <b>Health and Safety</b> | Certification systems require compliance with all applicable laws and regulations covering health and safety of employees and their families.  |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name               | Requirement(s)  |
|--------------------------------|---|----------|----------------------------------|---|
| <b>Public</b>                  |   |          |                                  |   |
| Sp23                           |   |          | <b>Public Consultation I</b>     | Certification systems require that people and groups directly affected by management operations are provided with opportunities for input and consultation. A public summary of management plans must also be made available. Public consultation and communication is appropriate to the scale and intensity of forest management.         |
| Sc11                           |   |          | <b>Public Consultation II</b>    | Certification systems require public consultation regarding the determination/verification of environmental components (e.g. forests of special conservation value) and social components (e.g. cultural values and community impacts) of forest management. Public consultation must explicitly include external stakeholders and experts. |
| Sc12                           |   |          | <b>Recreation, public access</b> | Certification systems require that forest management operations take into account impacts on recreational activities and public access (as supported by law). <sup>23</sup>   |
| Sc13                           |   |          | <b>Aesthetics</b>                | Certification systems require that forest management operations take into account the aesthetic values of forests. <sup>24</sup>  |
| <b>Forest operation</b>        |   |          |                                  |   |
| Sp24                           |   |          | <b>Economic viability</b>        | Certification systems require that forest operations strive towards economic viability. <sup>26</sup>   |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number                 | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name       | Requirement(s)  |
|--|---|----------|--------------------------|---|
| <b>Indigenous rights</b>                       |   |          |                          |   |
| Sc14   |   |          | Special aboriginal sites | Certification systems require the identification and protection of special aboriginal sites based on available documentation and, where desired by the affected tribes, the participation of those tribes.  |
| Sc15   |   |          | Traditional knowledge    | Certification systems require that indigenous peoples are compensated for use of their traditional knowledge regarding forest species and/or forest management systems. Free and informed consent regarding the means and amount of compensation must be obtained before the application of such knowledge.   |
| <b>Legal, institutional, policy frameworks</b> |   |          |                          |   |
| <b>Legal compliance</b>                        |   |          |                          |   |
| Sp25   |   |          | Forest law               | Certification systems require compliance with all forest-related international agreements (within signatory countries), and forest-related national and local laws and policies. <sup>28</sup>  |
| Sp26   |   |          | Land tenure              | Certification systems require that property rights and land tenure are clearly defined, and that forest operators comply with all legislation relating to property rights. As consistent with national norms for forest use, systems also require recognition and respect of the legal and customary rights of local communities to access and/or use forest resources. |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name | Requirement(s)  |
|--------------------------------|---|----------|--------------------|---|
| <b>Planning</b>                |   |          |                    |   |
| Sp27                           |   |          | Management plan    | Certification systems require, appropriate to the scale and intensity of forest management, that forest management plans and/or supporting documents be written and implemented that state the long-term objectives of forest management, and, consistent with those objectives, address forest resource protection, inventory, yield determination, harvesting practices, silviculture, monitoring and any other major forest management activities (FAO 1998). systems also require that management plans be periodically revised as needed to incorporate the results of monitoring and to address changing environmental, social and economic conditions. <sup>29</sup> |
| <b>Monitoring</b>              |   |          |                    |   |
| Sp28                           |   |          | Monitoring         | Certification systems require, appropriate to the scale and intensity of forest management, monitoring that assesses the condition of the forest, yield of forest products, and the social and environmental impacts of forest practices. <sup>30</sup>   |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number    | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name                    | Requirement(s)   |
|-----------------------------------|---|----------|---------------------------------------|--|
| <b>Infrastructure and Process</b> |   |          |                                       |  |
| Sp29                              |   |          | <b>Infrastructure and<br/>process</b> | Certification systems require that, appropriate to the scale and intensity of forest management: 1) responsibility is clearly assigned regarding compliance with management objectives and planning; 2) there is a mechanism for employee and public input on compliance with management objectives and planning.  |
| <b>Wood sourcing</b>              |   |          |                                       |  |
| Sc16                              |   |          | <b>Procurement</b>                    | Certification systems require, appropriate to the scale and intensity of forest management, that forest products procured from outside sources are sourced from operations that observe Best Management Practices and utilize trained loggers. Education and outreach is conducted among non-certified operators regarding reforestation and protection of endangered species. |

## USGBC Forest Certification Benchmark - Standards Substance

| Prerequisite/<br>Credit Number | 7 Sustainable<br>Forest Mgmt.<br>Themes | Criteria | Key Issues<br>Name        | Requirement(s)   |
|--------------------------------|---|----------|---------------------------|--|
| <b>Training and research</b>   |   |          |                           |  |
| Sc17                           |   |          | Training                  | Certification systems require that workers be adequately trained to meet certification standards. Appropriate to the scale and intensity of forest management, residents within or adjacent to the forest management area are given opportunities for employment, training and other services.     |
| Sc18                           |   |          | Education and<br>Outreach | Certification systems require, appropriate to the scale and intensity of forest management, the promotion at support of state, provincial and other levels, mechanisms for public outreach, education, and involvement related to forest management.   |
| Sc19                           |   |          | Research                  | Certification systems require, appropriate to the scale and intensity of forest management, the provision of in-kind support or funding (individually, or through cooperative efforts or associations) for forest research to improve the health, productivity and management of forest resources. |

## USGBC Forest Certification Benchmark - Chain of Custody and Labeling

| Prerequisite   | Credit  |  |  |
|--|---|--|--|
| <p>Certification systems may show compliance with any prerequisite or credit by documenting that the jurisdiction in which they certify chain of custody has enforced regulations that meet the requirements.</p> <p>For all endnotes in a particular benchmark requirement, please see the accompanying End Notes to Forest Certification Benchmarks. The endnotes contain background information on a requirement's revision, elaboration, or exclusion.</p> |   |  |  |
| Prerequisite/<br>Credit Number   | General-<br>Concept   | Policy Criteria<br>Name  | Requirement(s)   |
| Cp1  | <del>Compliance with international normative institutions</del> | Compliance with international normative institutions             | Certification systems require compliance with ISO 14020 and 14021 or equivalent.   |
| Cp2  | <del>Third party</del>  | Chain of Custody system  | Certification systems require third-party claims.  |
| Cp3  | <del>Restrictions on non-certified material</del>               | <b>Acceptable non-certified sources for percent-based claims</b> | Certification systems require due diligence to ensure that forest products labeled as certified <del>do not contain</del> avoid virgin or pre-consumer recycled wood from: 1) illegal or unauthorized sources; 2) non-certified forests of special social and environmental conservation value; <sup>31</sup> 3) genetically-modified organisms, and 4) harvesting that converts natural forest to plantations / non-forest. |
| Cp4  | <del>Restrictions on non-certified material</del>               | <b>Definition of legality</b>                                    | Certification systems explicitly ban wood <del>from illegal harvest in protected areas—harvested in violation of international, national, or district laws, including but not limited to laws related to timber harvest, social welfare, and environmental protection.</del> Compliance with CITES is required.  |
| Cc1  | <del>Restrictions on non-certified material</del>               | Verification of acceptable sources                               | Certification systems conduct risk assessments to determine prevalence of illegal logging. Certification systems identify wood sourced from low-risk countries to be acceptable and require 2nd or 3rd party verification of legality for wood sourced from high-risk countries.   |

## USGBC Forest Certification Benchmark - Accreditation and Certification Process

| Prerequisite   | Credit              |   |  |
|--|---------------------|---|--|
| <p>Certification systems may show compliance with any prerequisite or credit by documenting that the jurisdiction in which they accredit certifying bodies has enforced regulations that meet the requirements.</p> <p>For all endnotes in a particular benchmark requirement, please see the accompanying End Notes to Forest Certification Benchmarks. The endnotes contain background information on a requirement's revision, elaboration, or exclusion.</p> |                     |   |  |
| Prerequisite/<br>Credit Number   | General-<br>Concept | Policy Criteria<br>Name                     | Requirement(s)   |
| Accreditation  |                     |   |  |
| Ap1  | Quality control     | Accreditation system                        | Accreditation systems are specifically designed for forest management and chain of custody.  |
| Ap2  | Quality control     | Surveillance of auditors                    | The entity responsible for the certification scheme and/or accreditation bodies recognized by those schemes require that surveillance audits of accredited certifiers are conducted annually, including field-based audits of a sample of certified forest operations. <sup>32</sup>   |
| Ap3  | Transparency        | Reporting                                   | The entity responsible for the certification scheme and/or accreditation bodies recognized by those schemes require that accreditation and surveillance audit reports, and/or summaries of such reports, are made publicly available and include any required corrective actions or other disciplinary measures, and any complaints lodged against the certification body. |
| Ap4  | Public input        | Public input I                              | The entity responsible for the certification scheme and/or accreditation bodies recognized by those schemes require that public input be addressed regarding the performance of accredited certifiers {as part of the annual surveillance audit process}.  |
| Ac1  | Public input        | Public input II                             | The entity responsible for the certification scheme and/or accreditation bodies recognized by those schemes require that public input be addressed regarding the accreditation of certifying bodies.   |
| Certification  |                     |   |  |
| Ap5  | Public input        | Notification (of stakeholders by certifier) | The entity responsible for the certification scheme requires that certifying bodies provide advance notice of certification audits to local stakeholders as appropriate to the scale and intensity of the forest operation.  |

## USGBC Forest Certification Benchmark - Accreditation and Certification Process

| Prerequisite/<br>Credit Number | General-<br>Concept              | Policy Criteria<br>Name                            | Requirement(s)  |
|--------------------------------|----------------------------------|--|---|
| Ap6                            | <b>Public input</b>              | <b>Consultation</b> (of stakeholders by certifier) | The entity responsible for the certification scheme requires that certifying bodies consult with stakeholders during audits to the degree necessary to ensure compliance with standards.  |
| Ap7                            | <b>Transparency</b>              | <b>Public reporting</b>                            | The entity responsible for the certification scheme requires that a summary of the certification report, including a summary of findings on the auditee's conformance with the management standard, is made publicly available, and includes: a description of the forest management, the management system, a summary of the management plan, a summary of monitoring procedures, a description of any area of forest excluded from the scope of the certificate together with an explanation of the reason for its exclusion; a summary of the evaluation process; presentation of fundamental information to establish a connection between the central requirements of the standard and the performance of the certified operation; any discrepancies between stakeholder claims and auditor findings; the certification conclusion; and all non-compliances that must be corrected in order to maintain a certification. |
| Ap8                            | <b>Dispute resolution</b>        | <b>Dispute resolution</b>                          | <del>The entity responsible for the certification scheme have</del> <b>The entity certifying to the certification system has</b> established a formal dispute resolution process to address disputes related to certification decisions.  |
| Ap9                            | <b>Quality control</b>           | <b>Audit frequency</b>                             | The entity responsible for the certification schemes requires that certified forest operations be subject to annual audits to assess continued compliance with certification standards and, where relevant, the successful closure of corrective action requests.   |
| Ap10                           | <b>Quality control</b>           | <b>Certificate duration</b>                        | The entity responsible for the certification scheme imposes a five-year time limit on certification contracts. After five years, schemes require a full assessment for contract renewal.  |
| Ac2                            | <b>International consistency</b> | <b>International codes of practice</b>             | <del>The entity responsible for the certification scheme</del> <b>The entity certifying to the certification system</b> is compliant with ISO/IEC Guide 65 and ISO 17021 or their equivalent.   |
| Ac3                            | <b>Quality control</b>           | <b>Peer review</b>                                 | Certification schemes require peer review of certification audit reports by at least two qualified, independent peer reviewers.   |

## USGBC Forest Certification Benchmark - Accreditation and Certification Process

| Prerequisite/<br>Credit Number | <del>General<br/>Concept</del> | <del>Policy Criteria<br/>Name</del> | Requirement(s)   |
|--------------------------------|--------------------------------|-------------------------------------|--|
| Ac4                            | <del>Quality control</del>     | Field inspection                    | The entity responsible for the certification scheme requires that the assessment of compliance with standards for forest management and chain of custody include field-based audits of relevant forest management operations and forest product sales and processing facilities. |

## End Notes to Forest Certification Benchmark

1. The intent of the policy requirements is that the relevant policies be both developed and implemented. If evidence becomes available that the policies have not been implemented then this could be considered as evidence that the scheme does not meet the benchmark.
2. Certification schemes are not required to develop a policy of public disclosure in those regions where such disclosure is required by law.
3. Election of governing board members from outside of the board promotes greater openness and accountability to a broader range of stakeholders than internal board appointments. Exceptions are allowed where necessary to ensure that the board contains the necessary expertise to fulfill its governing responsibilities.
4. USGBC supports forest production that does not lead to loss of natural forest habitat. For the purposes of these benchmarks, "conversion of forest to another land use" is intended to be synonymous with the Food and Agriculture Organization's definition of "deforestation", i.e. "The conversion of forest to another land use, or the long-term reduction of the tree canopy cover to below the minimum 10 percent threshold." Source: FAO. 2004. Global Forest Resources Assessment Update 2005. Terms and Definitions (Final Version). Rome: Food and Agriculture Organization of the United Nations; pages 25, 26.
5. No certification schemes currently include measurable requirements that address the role of forests in carbon storage.
6. Functions of protected areas include: 1) to provide an ecological reference condition; 2) create or maintain under-represented ecological conditions; and 3) protect rare or sensitive species.
7. USGBC supports forest management that maintains the long-term health and integrity of natural forest ecosystems. Given the limits of current knowledge regarding ecological processes, the concept of the "range of natural variability" represents a precautionary approach to maintaining long-term ecosystem health. Past forest conditions and processes provide context and guidance regarding how ecosystems maintain themselves through time. Disturbance (i.e. fire, wind, insects, etc.)-driven spatial and temporal variability is a vital attribute of nearly all ecological systems. The USGBC benchmarks do not prescribe the precise time and spatial scale at which such attributes should be maintained, but rather are designed to support certification schemes that promote consideration of such factors in management regimes. For a summary review of the concept of "range of natural variability" see: Landres, PB; Morgan, P; Swanson FJ. 1999. Overview of the use of natural variability concepts in managing ecological systems. Ecological Applications 9(4) 1179-1188. Additionally, it is recognized that climate change affects the range of natural variability. Forest management should follow the best available science regarding adaptation to changing environmental conditions.
8. As consistent with Sp4: Ecosystem structure and function, USGBC does not support the conversion of natural forests to intensively managed plantations since such disturbance exceeds the range of natural variability and adversely impacts habitat and species diversity. The cutoff date for conversion is based on the anticipated release date of USGBC's Forest Certification Scheme Benchmarks to provide affected parties with advanced, transparent notice regarding USGBC policy. The FAO definition of plantations is: Forest/Other wooded land of introduced species and...(in some cases) native species established through planting or seeding characterized by few species, straight tree lines and/or even-aged stands. (FAO. 2004. Global Forest Resources Assessment Update

2005. Terms and Definitions (Final Version). Rome: Food and Agriculture Organization of the United Nations (FAO), pp. 17, 18).

9. See also Sp4: Ecosystem structure and function. This benchmark is meant to highlight the importance of appropriate retention of wildlife habitat elements. It is subsidiary to Sp4: Ecosystem structure and function requirements that elements of stand structure should be maintained within the range of natural variability.
10. Sp4: Ecosystem structure and function and benchmark Sp10: Management of natural disturbance both call for designing harvest patterns to mimic natural disturbance regimes. This limits clearcut sizes to within the range of natural variability for a given forest type.
11. The content of habitat protection "plans" is deliberately not specified, recognizing that requirements will vary depending on the scale and intensity of forestry impacts. Where impacts are modest, plans need not be lengthy or highly technical.
12. Sp4: Ecosystem structure and function includes the requirement to restore ecosystem structure and function to within the range of natural variability.
13. See also Sp4: Ecosystem structure and function. The objective addressed by this benchmark is to maintain or restore ecosystem structure and function to within the range of natural variability. It is not to mimic extreme events that could threaten the ecological balance.
14. "Minimize": To do only that which is necessary and appropriate to accomplish the task or objective described. "Least-toxic and narrowest-spectrum pesticide": A chemical preparation used to control site-specific pests that minimizes impact to non-target organisms and causes the least impact to the site while meeting management objectives. The management objectives consider the target pest, the degree of control needed, cost, and other issues, such as season and timing of application, rates and methods, terrain, forest conditions, and the presence or absence of water bodies. The following chemicals are prohibited: chlorinated hydrocarbon pesticides, pesticides banned by international agreement. Also prohibited: chemicals deemed to be acutely toxic to terrestrial or aquatic organisms, or highly persistent (including dioxins) according to the World Health Organization, the U.S. Environmental Protection Agency (for forest operations within the U.S.), or the Stockholm Convention on Persistent Organic Pollutants (POP). If temporary exemptions are allowed, there is a formal, transparent process for obtaining them.
15. This benchmark is goal/objective-oriented rather than prescriptive, due to its global-scale application. If certification schemes choose to prescribe stocking levels and time frames, then these should be tailored as appropriate to forest type.
16. See also Sc10: Soil protection. This benchmark is goal/objective-oriented rather than prescriptive.
17. USGBC recognizes that there is a lack of adequate information on sustainable harvest rates for many forest products and/or species, particularly those for which there has historically been limited commercial use. USGBC expects certification schemes to promote due diligence and a precautionary approach in the context of these uncertainties.
18. See also Sc1: Carbon storage. The provision and marketing of "environmental services" from forests is an issue that has gained increasing traction in the U.S., Canada and internationally. The Distinguishing benchmark is a target and is intended to encourage certification schemes to support these efforts.
19. See also Sp4: Ecosystem structure and function.
20. This issue area addresses damage to residual trees and other natural resources as a result of harvesting activities. Residual damage is believed to be adequately addressed under Sp4: Ecosystem structure and function. While some certification schemes may

include specific requirements to protect residual stands (something supported by USGBC), it is believed that this level of detail was not required for inclusion in a global USGBC benchmark.

21. The intent of this requirement is to ensure that forest managers in all countries practice due diligence in recognizing and addressing indigenous rights to land and resources. This benchmark is of relevance in all countries, regardless of the nature and extent of underlying legal frameworks and their implementation. The goal of USGBC is to reward exemplary performance, not merely legal compliance.
22. The intent of this benchmark is to ensure that forest managers in all countries practice due diligence in registering and addressing grievances.
23. Benchmarks relating to public consultation (Sp22 and Sc11) and land tenure (Sp25) provide avenues to address recreational use and public access. Recreational forest users could be considered to be directly affected persons whom, according to Sp22: Consultation, should be given opportunities for input and consultation regarding management activities that affect them. Legal and customary access rights are addressed under Benchmark S41: Land tenure.
24. Sp22: Public Consultation requires that directly affected persons be given opportunities for input and consultation regarding management activities that affect them. This would include opportunities for consultation regarding aesthetic impacts.
25. In the case of public lands the "people and groups directly affected" by forest management who are covered under Sp22: Public consultation include any and all interested members of the "public" that own those lands.
26. Economic viability is recognized as a core component of sustainable forestry. This benchmark provides the opportunity for certifiers to balance economic with social and environmental considerations in assessing the long-term impacts of management and encourages certification decisions that include guidance on an operation's economic viability.
27. Sp4: Ecosystem structure and function serves to reduce the likelihood of wasteful forest practices that result in disturbances beyond the range of natural variability.
28. Forest-related laws include all laws relevant to the USGBC benchmarks, including wildlife laws, water quality laws, labor laws, treaties with indigenous peoples, etc.
29. See also Sp22: Public consultation regarding public summaries of management plans.
30. See also Sp26: Management plan on incorporating the results of monitoring into management planning.
31. See Sp2: Forests of special conservation value for more information.
32. See also Ac2: International codes of practice.