

# Country Forest Risk Assessment Tool

## Background

This tool has been developed to assess risks associated with the sourcing of timber from countries. By risk we mean the likelihood of:

- the timber coming from forests that have been illegally harvested;
- timber coming from forests that have a high conservation value;
- timber coming from plantations that have been recently converted from natural forests;

We also want to be able to identify countries that are likely to be importers of timber from high risk countries (i.e. countries where one or more of the above issues are likely to occur).

There are, of course, other risks associated with the forest products supply chain – such as land rights or labour standards – however they are beyond the scope of this assessment.

The tool we have developed is by no means perfect but it does enable us to be more objective in our assessment of risks in forest product supply chains. This objectivity rests on the fact that we are using robust, well respected, international indicators within the tool. These indicators are all up-dated annually keeping the tool current and relevant.

This tool is meant to assist Acona's staff in assessing risk within global forest product supply chains. It is not a replacement for detailed knowledge on these issues, which the company has developed, and continues to develop through research, engagement, and project experience.

We have consulted various experts during the development of this tool and their input and support, for which we are grateful, has proved invaluable.

## Outline of the tool

The tool has three separate stages:

1. Country risk assessment
2. Specific Eco-Region assessment
3. Importing country risk assessment

### 1. Country risk assessment:

Firstly, we want to assess the risk of illegal logging, conversion, and the rate of forest loss occurring within a particular country. We combine two different indicators to do this:

- We started by looking at the overall change in forest cover within a country to assess the rate of deforestation. We use the UN's FAO State of the World's Forests<sup>1</sup> to assess this.
  - Initially we had hoped to use the UN FAO's measure of change in Primary forest cover as this would enable us to see the underlying fall in natural forests. However, these statistics are not comprehensive enough to include at present. If the coverage of these indicators improves we will re-introduce them in subsequent years – we have left them in the current tool but given them a weighting of zero.
  - We have used the total Area Change in Forest Cover indicator from the FAO report.
- We also wanted to look at the issue of governance within a country. If the rule of law within a country is considered to be enforced then we would expect this to extend to the protection and control of forests.
  - There are several measures of governance we could have used (e.g. World Bank's Worldwide Governance Indicators<sup>2</sup>, Freedom House's Freedom in the World Report data<sup>3</sup>). In the end we decided to use Transparency International's Corruption Perception Index<sup>4</sup>.
- Each of the indicators is then converted into a score of 1-10, where 1 is the best. We then multiply each indicator by a given weighting and add them all together to give an overall risk score. We then categorise the results as either HIGH or LOW risk depending on the score.

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<sup>1</sup> UN FAO State of the World's Forests 2007 - <http://www.fao.org/docrep/009/a0773e/a0773e00.HTM>

<sup>2</sup> World Bank, *Worldwide Governance Indicators*- <http://info.worldbank.org/governance/wgi/index.asp>

<sup>3</sup> Freedom House, *Freedom In The world Report* - <http://www.freedomhouse.org/template.cfm?page=15>

<sup>4</sup> Transparency International, *Corruption Perception Index* - [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi)

## 2. Specific eco-regions risk assessment:

- Although a country may turn out to have a low risk under the *Country Risk Assessment process*, we recognise that there may be forest areas within that country which are considered to have conservation value.

Canada, for example, is a country that has been assessed to be LOW RISK as they scored well in the CPI index and there was no change in forest cover. However, we know that there are forest areas – such as the Canadian Boreal forests – which are of a high conservation value.

- We have used the WWF list of Terrestrial Eco-Regions<sup>5</sup> to highlight specific areas of interest that include forests.

## 3. Importing country risk assessment:

- The final part of the tool looks at whether a country imports a significant amount of wood from those countries listed as HIGH RISK in the initial *Country Risk Assessment*. If it is, and if the country has been assessed as having poor governance, then we may find that the country is importing illegally harvested timber from those HIGH RISK countries.
  - We again use the UN's FAO State of the World's Forests to collect import data of industrial round wood from the high risk countries coming out of the initial *Country Risk Assessment*.
  - And we've again used Transparency International's Corruption Perception Index as a measure of governance within a country.

The two indices are then combined to show us where a country is a significant importer of timber from high risk countries and, at the same time, has weak governance.

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<sup>5</sup> WWF Eco-Regions - [http://www.panda.org/about\\_our\\_earth/ecoregions/about/](http://www.panda.org/about_our_earth/ecoregions/about/)

## Detail of each stage of the tool

### 1. Country risk assessment:

**Inputs:** Raw data taken from sources listed on page 3:

- TI CPI: Transparency International's Corruption Perception Index
- FAO: UN Food & Agriculture Organisation statistics

**Calculations:**

- Converts the inputs to scores of 1 to 10, with 10 being the worst.
- The top row is the weighting that is then assigned to each calculated score to give the *Raw Risk Rating* result.

**Raw Risk Rating:** Gives the combined weighted score of the converted indices. A score of 5.4 or above is a HIGH RISK rating (shown in red).

**Forest Area:** We have only included countries with a forest area above 1 000 000 hectares (taken from FAO Statistics).

	FOREST AREA ('000 ha)	INPUTS			CALCULATIONS			Raw Risk Ratings	Corrected Ratings (RED-HIGH)	Eco Region(s)?	Transition Risk?
		TI CPI	FAO Forest Cover, '00 to '05	FAO Change In Primary Forest Cover	TI CPI	FAO Change In Forest Cover	FAO Change In Primary Forest Cover				
					0.6	0.40	0.0	100%			
Algeria	2277	3.0	6.20%		8	1	0	5.2	5.20	YES	YES
Angola	59104	2.0	-1.04%		9	2	0	6.2	6.20	YES	NO
Argentina	33021	3.0	-2.22%		8	3	0	6.0	6.00	YES	NO
Australia	163678	9.0	-0.59%	0.00%	2	2	1	2.0	2.00	YES	NO
Austria	3862	8.0	0.63%		3	1	0	2.2	2.20	YES	NO
Belarus	7894	2.0	0.59%	0.00%	9	1	1	5.8	5.80	NO	YES
Belize	1653	0.0	0.00%	0.00%	0	1	1	0.4	1.00	NO	NO
Benin	2351	3.0	-12.11%		8	10	0	8.8	8.80	YES	NO
Bhutan	3195	5.0	1.72%	0.00%	6	1	1	4.0	4.00	YES	NO

A comment on weightings:

- We spent a long time looking at the weightings and seeing their effects on the end raw risk rating. In the end we decided that the most important factor was the TI/CPI as this gave us a measure of how well any local laws would be enforced; therefore, we gave it a score weighting of 60% (0.6)
- The remaining 40% of the weighting was given to the FAO figures of a country's change in forest cover. The change in primary forest cover index is not currently being used as the data has poor coverage.

A comment on the HIGH RISK cut-off score:

- We chose the cut-off score of 5.4 above which all countries would be treated as high risk in this stage of the assessment. 5.4 was chosen because it best reflected our current understanding of which countries are high risk in terms of illegal or destructive forestry practices. This seemed to be the best way to first calibrate a sensible cut-off point for this new tool.

**2. Specific eco-regions risk assessment:**

**Ecoregions?** This column simply shows if a forest Ecoregion falls within a country's borders.

**WWF Ecoregions:** The relevant WWF Ecoregion is specified here. A full list of Ecoregions can be found on WWF's website [here](#).

COUNTRY	Eco Region(s)?	WWF Forest Ecoregions
Algeria	YES	<u>European-Mediterranean</u> <u>Montane Mixed Forests</u>
Angola	NO	<u>Mediterranean Forests</u> <u>Woodland &amp; Scrub</u>
Argentina	NO	
Australia	YES	<u>Eastern Australia Temperate Forests</u> <u>Lord Howe-Norfolk Islands Forests</u> <u>Queensland Tropical Forests</u> <u>Southern Australia Mallee and Woodlands</u> <u>Southwestern Australia Forests and Scrub</u> <u>Tasmanian Temperate Rain Forests</u>
Austria	YES	<u>European-Mediterranean</u> <u>Montane Mixed Forests</u>
Belarus	NO	
Belize	NO	

### 3. Importing country risk assessment:

**Total Timber from High Risk Countries:** This is the total imports from the high risk countries (right hand columns).

**TI CPI:** This is the converted score used in the Country Risk Assessment (1-10, 10 being the worst) of Transparency International's Corruption Perception Index.

**Exports from 'high risk countries':** List of high risk countries (as identified in the *Country Risk Assessment* – stage 1) and their exports of industrial roundwood (m<sup>3</sup>/year) to the countries listed in the left hand column. Data is taken from FAO State of the Forest report.

Imports to:	Total Timber from High Risk Countries	TI CPI	Transshipment Risk	Exports from 'high risk countries' (as identified in the Country Risk Assessment) (FAO Stats 2006):											
				Algeria	Angola	Argentina	Belarus	Benin	Bolivia	Bosnia He	Brazil	Cambodia	Cameroon	Chad	
China	31296001	7	YES			7415				199		0			66357
Finland	12918050	2	NO				64					0			
Japan	6451125	4	NO			0						2			435
India	2227966	8	YES									570			3832
Sweden	2187781	2	NO				56741					1879			
Turkey	2178110	6	YES									0			2422
Korea, South	1988905	5	YES									0			520
Estonia	1525894	4	NO												
Latvia	1050752	6	YES												
Germany	697413	3	NO									1149			5809
Poland	413963	6	YES									0			
France	371662	4	NO			0	45202					104			3121

**Transshipment Risk:** Countries are believed to pose a trans-shipment risk if:

- Over 2000m<sup>3</sup> of wood per year is imported from high risk countries AND
- The country has a TI CPI score of 5 or above.

Results of the tool

COUNTRY	FOREST AREA ('000 ha)	Corrected Risk ratings (RED=HIGH)	Eco Region(s)?	Transshipment Risk?
Algeria	1492	6.40	YES	NO
Angola	58480	6.20	YES	NO
Argentina	29400	6.80	YES	NO
Australia	149300	2.80	YES	NO
Austria	3887	2.20	YES	NO
Belarus	8630	5.20	NO	NO
Belize	1393	4.00	NO	NO
Benin	4561	7.20	YES	NO
Bhutan	3249	3.40	YES	NO
Bolivia	57196	6.40	YES	YES
Bosnia and Herzegovina	2185	5.20	YES	NO
Botswana	11351	5.40	YES	NO
Brazil	519522	5.40	YES	YES
Bulgaria	3927	4.60	YES	YES
Burkina Faso	5649	7.20	NO	NO
Cambodia	10094	8.20	YES	NO
Cameroon	19916	7.80	YES	NO
Canada	310134	1.60	YES	NO
Central African Republic	22605	6.20	YES	NO
Chad	11525	7.00	NO	NO
Chile	16231	2.80	YES	NO
China	206861	4.60	YES	YES
Colombia	60499	5.00	YES	NO
Congo	22411	6.20	YES	NO
Congo, Democratic Repu	154135	9.00	YES	YES
Costa Rica	2605	4.00	YES	NO
Cote D'Ivoire	10403	5.80	YES	NO
Croatia	1920	4.60	YES	NO
Cuba	2870	4.60	YES	NO
Czech Republic	2657	4.00	YES	YES
Dominican Republic	1972	5.20	YES	YES
Ecuador	9865	8.80	YES	NO
Equatorial Guinea	1626	7.40	YES	NO
Eritrea	1532	5.60	NO	NO
Estonia	2217	3.60	NO	NO
Ethiopia	12296	7.20	NO	NO
Fiji Islands	1014	1.00	YES	NO
Finland	22157	1.60	YES	NO
France	15954	2.80	YES	NO
French Guiana	8082	1.00	YES	NO
Gabon	22000	5.20	YES	NO
Georgia	2742	4.60	YES	YES
Germany	11076	2.20	YES	NO
Ghana	4940	8.20	YES	NO
Greece	3903	4.60	YES	YES
Guatemala	3657	8.00	YES	NO
Guinea	6544	7.00	YES	NO
Guinea-Bissau	2022	6.60	NO	NO
Guyana	15205	5.20	YES	NO
Honduras	5192	9.40	YES	NO
Hungary	2029	4.00	NO	YES
India	68434	5.20	YES	YES
Indonesia	94432	6.80	YES	NO
Iran	11075	5.80	YES	NO
Italy	9149	4.60	YES	YES
Japan	24979	2.20	YES	NO
Kazakhstan	3309	5.60	YES	NO
Kenya	3467	6.60	YES	YES
Korea, North	5666	10.00	NO	NO
Korea, South	6222	4.40	NO	YES
Laos	15751	6.60	YES	NO

COUNTRY	FOREST AREA ('000 ha)	Corrected Risk ratings (RED=HIGH)	Eco Region(s)?	Transshipment Risk?
Latvia	3354	4.60	NO	YES
Liberia	4329	6.40	YES	NO
Lithuania	2160	4.00	NO	YES
Madagascar	12553	6.00	YES	NO
Malawi	3237	7.20	YES	NO
Malaysia	20456	5.40	YES	YES
Mali	12490	6.40	NO	NO
Mexico	64802	5.60	YES	NO
Mongolia	10898	6.80	YES	NO
Morocco	5131	5.20	YES	YES
Mozambique	39022	6.40	YES	NO
Myanmar	31773	8.40	YES	NO
Namibia	7290	6.60	YES	NO
Nepal	3636	5.80	YES	NO
New Zealand	8269	2.00	YES	NO
Nicaragua	3114	8.80	YES	NO
Niger	1204	7.20	NO	NO
Nigeria	9041	9.40	YES	NO
Norway	10065	1.60	YES	NO
Pakistan	1687	9.40	YES	YES
Panama	3251	5.40	YES	YES
Papua New Guinea	28726	6.60	YES	NO
Paraguay	17582	7.80	YES	NO
Peru	67992	5.00	YES	NO
Philippines	7665	5.80	YES	YES
Poland	9337	4.00	YES	YES
Portugal	3456	3.40	YES	YES
Romania	6573	4.60	YES	YES
Russia	809090	5.80	YES	NO
Saudi Arabia	977	4.00	YES	NO
Senegal	8473	6.00	NO	YES
Serbia	2713	4.60	NO	NO
Sierra Leone	2726	7.00	YES	NO
Slovakia	1933	4.60	YES	YES
Slovenia	1253	3.40	YES	NO
Solomon Islands	2213	5.60	YES	NO
Somalia	6747	8.40	YES	NO
South Africa	9241	4.00	YES	YES
Spain	18173	3.40	YES	YES
Sri Lanka	1860	6.80	YES	NO
Sudan	69949	5.80	NO	NO
Suriname	14758	1.00	YES	NO
Sweden	28203	1.60	YES	NO
Switzerland	1240	1.60	NO	NO
Taiwan	206861	3.40	YES	YES
Tanzania	33428	7.60	YES	NO
Thailand	18972	4.60	YES	YES
Tunisia	1006	4.60	YES	YES
Turkey	11334	4.60	YES	YES
Turkmenistan	4127	5.80	YES	NO
Uganda	2988	8.80	YES	NO
Ukraine	9705	5.80	YES	NO
United Kingdom	2881	2.20	NO	NO
United States of America	304022	2.80	YES	NO
Uruguay	1744	2.80	NO	NO
Uzbekistan	3276	6.20	YES	NO
Venezuela	46275	7.00	YES	NO
Vietnam	13797	5.20	YES	YES
Zambia	49468	6.00	YES	NO
Zimbabwe	15624	9.40	YES	NO

Date: 15<sup>th</sup> November 2011  
Report Title: Country Forest Risk Assessment Tool

## **Use of the tool by external parties**

This tool is the property of Acona Ltd. However, we are happy to share not only the results of this tool but also the workings of this tool, with other parties.

If you would like to reproduce any of the contents of this guidance document, including the results of the tool on page 8, then please do so but include a reference to Acona Ltd as the source of this information.

If you would like a copy of the full Excel based tool, which includes all source data sets and calculations, then please get in touch with us at:

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