

Responsible Business Conduct Policy

March 2019

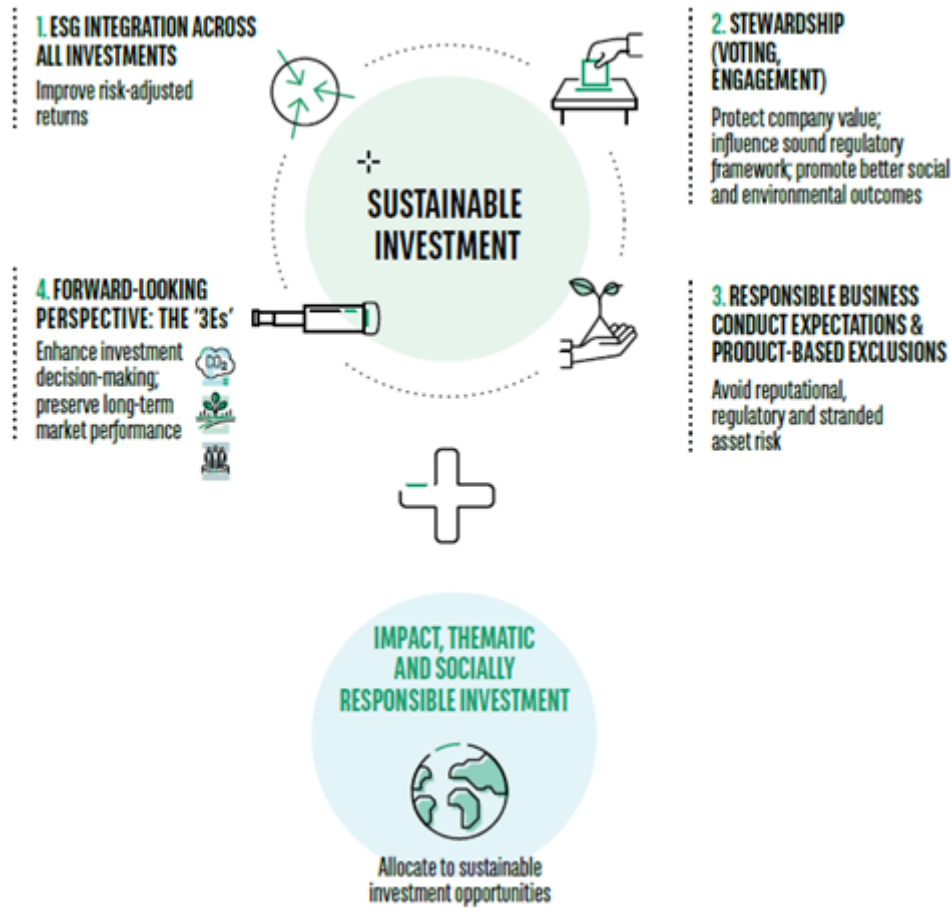


BNP PARIBAS
ASSET MANAGEMENT

The asset manager
for a changing
world

In a fast changing world, our focus is on achieving long-term sustainable investment returns for our clients. In line with this, we are committed to adopting a sustainable-investment approach for the full range of our investment strategies. We believe this is in the financial interest of our clients, and of the economy at large. At BNPP AM, we define sustainable investment as including four components, all of which are utilised by BNPP AM. One of these components is Responsible Business Conduct (RBC) and product-based exclusions.

BNP Paribas AM – Sustainable investment approach



Because we believe in sustainable practices for ourselves, but also for the entities in which we invest, and we believe it is consistent with our fiduciary responsibilities to act in the best long-term interests of our clients. We are committed to incorporating RBC standards into our investment criteria and stewardship practices.

This Policy is consistent with BNP Paribas Asset Management’s adherence to the UN Principles for Responsible Investment (PRI) in 2006 and BNP Paribas Group’s commitment to corporate responsibility and sustainable development.

1. IMPLEMENTATION OF RESPONSIBLE BUSINESS CONDUCT REQUIREMENTS FOR ALL OUR INVESTMENTS

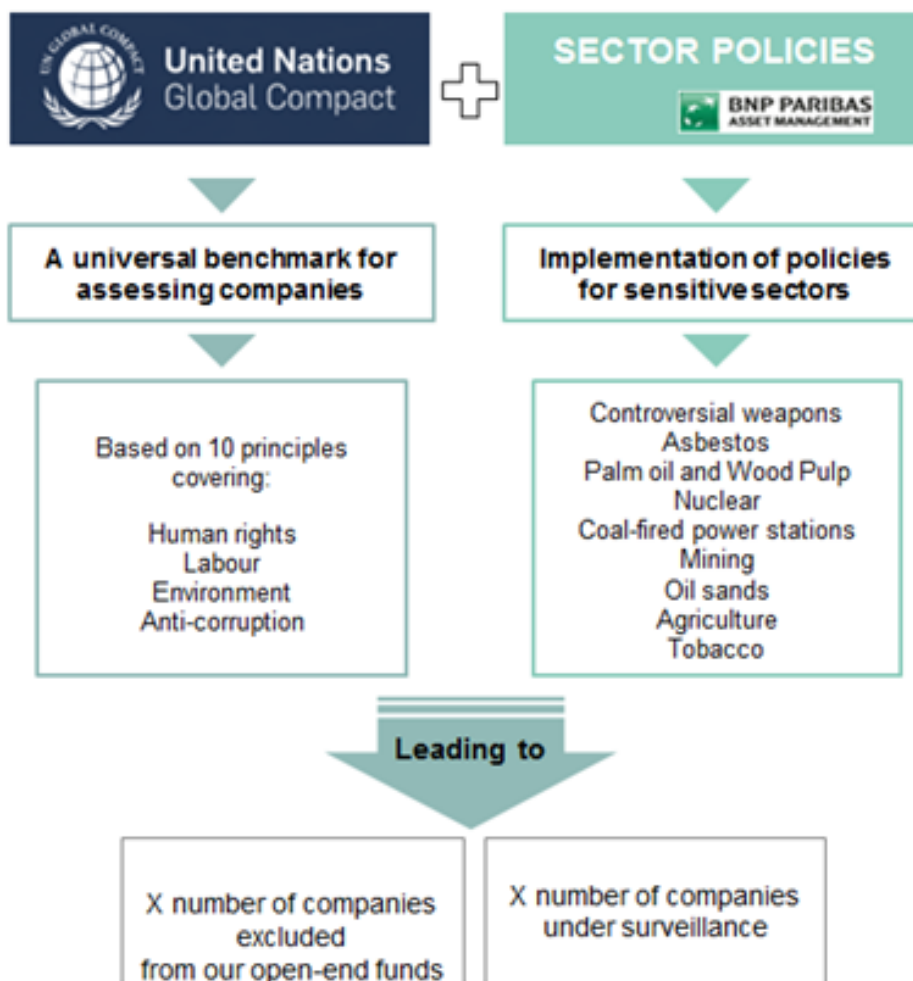
We are aware that RBC impacts the value and reputation of entities in which we invest. We expect companies to meet their fundamental obligations in the areas of human and labour rights, protecting the environment and ensuring anti-corruption safeguards, wherever they operate, in line with the UN Global Compact Principles and OECD Guidelines for Multinational Enterprises (OECD MNEs Guidelines). These are shared frameworks, recognised worldwide and applicable to all industry sectors, based on the international conventions in the areas of human rights, labour standards, environmental stewardship and anti-corruption. We aim to engage with companies where they fall short, and exclude the worst offenders.

We have a series of sector policies that set out the conditions for investing in particular sectors, and guide our screening requirements and stewardship activities. These criteria are based on relevant international conventions and regulations (including the supplemented criteria provided by the OECD for sensitive sectors such as responsible agricultural supply chains or conflict minerals), BNP Paribas Group CSR Policies, and voluntary industry standards. In each sector, we highlight mandatory sector RBC requirements which have to be met by issuers in order for BNP Paribas Asset Management to invest. We do this because if the activities in question are not conducted properly, then they could cause serious social or environmental damage (such as palm oil). In addition to the compulsory standards, we have also developed additional criteria that we encourage companies to comply with. The latter provides a good framework for further analysis and dialogue with companies.

We have another set of policies that commit us to exclude particular sectors or activities (tobacco, coal, controversial weapons or asbestos), as we deem them to be in violation of international norms, or to cause unacceptable harm to society and/or the environment, without counterbalancing benefits. These are generally sectors where engagement makes little sense.

RBC should be considered as an enhanced risk management tool that can help avoid reputational, regulatory and stranded asset risk.

Overview of BNPP AM's responsible business conduct and product-based solutions approach



2. IMPLEMENTATION PRINCIPLES

We are committed to ensuring the consistent¹ implementation of our Responsible Business Conduct policy to all open-ended funds managed or delegated by BNP Paribas Asset Management entities, but related exclusions are not currently applied to all client mandates. By 2020, this will become the default approach for new mandates, and we will approach existing clients to seek their approval to apply the policy to existing mandates.

Affiliated entities over which BNP Paribas Asset Management or the BNP Paribas Group do not have operational control are invited to adopt this strategy and implement the components of our Responsible Business Conduct Policy. Where we use affiliates or external investment managers for our open-ended funds, we expect them to incorporate Responsible Business Conduct policies in line with our sustainable investment philosophy.

In applying our Responsible Business Conduct Policy, we take into account specific circumstances as they relate to the environmental, social and governance practices of individual issuers. BNP Paribas Asset Management bases its judgment on data gathered from issuers and third-party research providers, and does its best to gather relevant information. However, it is dependent on the quality, accuracy and timeliness of the information collected.

We strive to implement this Policy in the best interest of our clients and operate at arms' length from the BNP Paribas Group and its subsidiaries or affiliate companies.

Our Responsible Business Conduct Policy is publicly available on BNP Paribas Asset Management's website and is reviewed regularly in order to reflect the evolution of ESG standards and market practices.

3. HOW TO INTEGRATE RBC REQUIREMENTS IN INVESTMENTS

The following principles govern our implementation of Responsible Business Standards within our investment processes:

1. Investment universes are periodically screened with a view to identify issuers that are potentially in breach of UN Global Compact Principles and OECD MNEs guidelines and/or mandatory requirements applicable to controversial sectors and products.
2. This assessment is conducted within our Sustainability Centre on the basis of internal analysis and information provided by external experts, and in consultation with BNP Paribas Group CSR Team.
3. As a result of this process, BNP Paribas Asset Management establishes and maintains two lists:
 - An **exclusion list** of issuers that are associated with serious and repeated breaches of UN Global Compact Principles and/or mandatory requirements related to controversial sectors and products.
 - A **watchlist** of issuers that are at risk of breaching ESG standards and with whom we engage in a dialogue to encourage improvements.
4. The exclusion list and watchlist are communicated by CIOs to investment teams on a regular basis. As a result, investment teams should not initiate *new* investments in excluded companies with immediate effect. *Existing* investments should be divested from relevant portfolios based on market conditions but not later than one month after communication by CIOs.
5. The exclusion list applies to all open-ended funds managed by BNP Paribas Asset Management entities, with the exception of portfolios which replicate the composition of indices (eg ETFs and indexed funds). In the case of perfect or optimised physical replication, the exclusion list is not applied contrary to synthetic replication where exclusions rule. Exceptions may also be granted in cases where exclusions from actively managed portfolios would result in significant market risk versus the benchmark.
6. The exclusion list applies to all types of securities (equities, bonds, convertible bonds...) issued by aforementioned companies, as well as bonds issued by related financial vehicles. It also applies to participation notes and derivatives issued by third-parties on such securities. These restrictions apply to securities negotiated on primary and secondary markets, as well as OTC instruments.
7. Pre-trade and post-trade compliance checks are conducted by Investment Compliance teams to ensure that exclusions lists are implemented by all relevant portfolios.
8. Subject to legal and technical constraints, ESG standards also apply to:
 - Segregated accounts and mandates (subject to client information or approval where required);

¹ Subject to technical and legal constraints.

- Funds delegated to external asset managers (subject to amendment of relevant Investment Management Agreements or Investment Guidelines);
- Evaluation of external asset managers to be included in funds of funds and buy lists.

4. THE PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) (WWW.UNPRI.ORG)

BNP Paribas Asset Management was one of the founding signatories of the PRI in 2006.

The PRI is the world's leading proponent of responsible investment. It works to understand the investment implications of environmental, social and governance (ESG) factors and to support its international network of investor signatories in integrating these factors into their investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The PRI is truly independent. It encourages investors to use responsible investment to enhance returns and better manage risks, but does not operate for its own profit; it engages with global policy makers but is not associated with any government; it is supported by, but not part of, the United Nations.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice.

The Principles were developed by investors, for investors. They have nearly 2300 signatories, from over 50 countries, representing more than US\$95 trillion as of the end of 2018.

- **Principle 1:** We will incorporate ESG issues into investment analysis and decision-making processes.
- **Principle 2:** We will be active owners and incorporate ESG issues into our ownership policies and practices.
- **Principle 3:** We will seek appropriate disclosure on ESG issues by the entities in which we invest.
- **Principle 4:** We will promote acceptance and implementation of the Principles within the investment industry.
- **Principle 5:** We will work together to enhance our effectiveness in implementing the Principles.
- **Principle 6:** We will each report on our activities and progress towards implementing the Principles.

5. NORM BASED SCREENING: THE GLOBAL COMPACT PRINCIPLES (WWW.UNGLOBALCOMPACT.ORG)

The Global Compact is the world's largest corporate sustainability initiative which aims to "embrace, promote and ensure compliance with" universal principles in the area of human rights, labour, the environment and the fight against corruption.

These ten principles are inspired by the Universal Declaration of Human Rights, the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

HUMAN RIGHTS

- **Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights; and
- **Principle 2:** make sure that they are not complicit in human rights abuses.

LABOUR STANDARDS

- **Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- **Principle 4:** the elimination of all forms of forced and compulsory labour;
- **Principle 5:** the effective abolition of child labour; and
- **Principle 6:** the elimination of discrimination in respect of employment and occupation.

ENVIRONMENT

- **Principle 7:** Businesses should support a precautionary approach to environmental challenges;
- **Principle 8:** undertake initiatives to promote greater environmental responsibility; and
- **Principle 9:** encourage the development and diffusion of environmentally friendly technologies.

ANTI-CORRUPTION

- **Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery.

6. NORM BASED SCREENING: THE OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES ([HTTP://MNEGUIDELINES.OECD.ORG/RESPONSIBLE-BUSINESS-CONDUCT-MATTERS.HTM](http://mneguidelines.oecd.org/responsible-business-conduct-matters.htm))

The guidelines comprise eight chapters.

I. Concepts and Principles

The first chapter of the *Multinational Enterprise (MNE) Guidelines* sets out the concepts and principles that put into context all of the recommendations in the subsequent chapters. These concepts and principles (e.g. obeying domestic law is the first obligation of enterprises) are the backbone of the *Guidelines* and underline the fundamental ideas behind the *Guidelines*.

II. General Policies

This chapter is the first to contain specific recommendations to enterprises in the form of general policies that set the tone and establish a framework of common principles for the subsequent chapters. It includes important provisions such as implementing due diligence, addressing adverse impacts, engaging stakeholders, and others.

III. Disclosure

Clear and complete information on the enterprise is important to a variety of users. This chapter calls on enterprises to be transparent in their operations and responsive to increasingly sophisticated public demands for information.

IV. Human Rights

Enterprises can have an impact on virtually the entire spectrum of internationally recognised human rights. As such, it is important that they meet their responsibilities. This new chapter of the *Guidelines* draws on and is aligned with the UN “Protect, Respect and Remedy” Framework and the *Guiding Principles on Business and Human Rights* that operationalise that framework.

V. Employment and Industrial Relations

The ILO is the competent body to set and deal with international labour standards and to promote fundamental rights at work as recognised in the ILO 1998 Declaration on Fundamental Principles and Rights at Work. This chapter focuses on the role the *Guidelines* have in promoting observance among MNEs of the international labour standards developed by the ILO.

VI. Environment

The environment chapter provides a set of recommendations for MNEs to raise their environmental performance and help maximise their contribution to environmental protection through improved internal management and better planning. It broadly reflects the principles and objectives of the Rio Declaration on Environment and Development and Agenda 21.

VII. Combating Bribery, Bribe Solicitations and Extortion

Bribery and corruption are damaging to democratic institutions and the governance of corporations. Enterprises have an important role to play in combating these practices. The OECD is leading global efforts to level the playing field for international businesses by fighting to eliminate bribery. The recommendations in the *Guidelines* are based on the extensive work the OECD has already done in this field.

IX. Science and Technology

This chapter recognises that MNEs are the main conduit of technology transfer across borders. It aims to promote technology transfer to host countries and contribution to their innovative capacities.

X. Competition

This chapter focuses on the importance of MNEs carrying out their activities in a manner consistent with all applicable competition laws and regulations, taking into account the competition laws of all jurisdictions in which their activities may have anti-competitive effects. Enterprises need to refrain from anti-competitive agreements, which undermine the efficient operation of both domestic and international markets.

XI. Taxation

The *Guidelines* are the first international corporate responsibility instrument to cover taxation, contributing to and drawing upon a significant body of work on taxation, most notably the OECD Model Tax Convention and the UN Model Double Taxation Convention between Developed and Developing Countries. This important chapter covers fundamental taxation recommendations.

VIII. Consumer Interests

The *Guidelines* call on enterprises to apply fair business, marketing, and advertising practices and to ensure the quality and reliability of the products that they provide. This chapter draws on the work of the OECD Committee on Consumer Policy and the Committee on Financial Markets, and of other international organisations, including the International Chamber of Commerce, the International Organisation for Standardisation and the UN.

B. SECTOR-SPECIFIC ESG STANDARDS SCREENING

In addition to the OECD MNEs Guidelines and UN Global Compact Principles, we have a series of sector policies that set out the conditions for investing in particular sectors, and guide our screening requirements. We do this because if the activities in question are not conducted properly, they could cause serious social or environmental damage.

We have another set of policies that commit us to excluding particular sectors or activities (such as tobacco, synthetic crude oil from tar sands, coal, controversial weapons or asbestos), as we deem them to be in violation of international norms, or to present unacceptable harms to society or the environment, without counterbalancing benefits. These are generally sectors where engagement makes little sense.

Our sector policies cover the following areas:

- **Palm oil and Wood Pulp:** Our aim is to encourage the production of sustainable palm oil and wood pulp by investing only in companies that meet minimum environmental and social standards. Consequently, we will not invest in companies that do NOT adhere to such minimum standards (e.g. by converting protected areas into palm oil and wood plantations, or using child/forced labour).
- **Nuclear:** This policy aims at addressing the ethical issues of the nuclear power sector and at establishing guidelines for conducting business in a responsible manner. The objective is to ensure that we invest in companies that operate in countries with a proper legal framework, use appropriate technologies and adopt adequate health & safety monitoring and accident prevention measures.
- **Agriculture:** The objective of this policy is to address some major environmental, social and governance issues of the agriculture sectors and to establish guidelines to conduct business in a responsible manner.
- **Mining:** The objective is to ensure that we do not invest in companies that use Mountain Top Removal (MTR) technics or exhibit poor ESG standards and practices.
- **Oil sands:** The objective is to ensure we invest only in companies within the oil & gas sector that exploit resources that are produced with the best possible practices to limit associated greenhouse gases emissions and other negative impacts. We are finalising an unconventional oil policy to be applied by January 2020².

In the following pages, we provide a comprehensive overview for each policy, including a description of the two types of criteria – compulsory and recommended - that we apply to our investments:

- **Mandatory requirements** are to be understood as *sine qua non*: those that have to be met without exception for BNP Paribas Asset Management to invest in a company.
- **Evaluation criteria** provide a framework for further contextual analysis and dialogue with companies, based on which BNP Paribas Asset Management may decide not to invest even if mandatory requirements are met.

Our exclusion policies cover:

- **Coal Policy:** BNP Paribas Asset Management continues to progressively align its portfolios with the Paris Agreement by implementing a significantly tighter exclusion policy on companies that are engaged in the mining of thermal coal and the generation of electricity from coal. The policy will be fully implemented by 1 January 2020. It applies to all of BNPP AM's actively managed open-ended funds, and will become the default policy for mandates from 1 January 2020.
- **Tobacco:** From 1 January 2019 BNPP AM ceased to invest in tobacco manufacturing companies. The policy will apply to all of BNPP AM's actively managed open-ended funds and will become the default policy for mandates.

² The proposed policy is as follows: "From January 2020, BNP Paribas AM will no longer finance companies whose principal business activity is the exploration, production, distribution, marketing or trading of oil from tar sands and will not finance oil exploration and production projects in the Arctic defined as land and ocean north of the 10 degree Celsius Isotherm (the "10 degree line") and the Antarctic. The following thresholds are used to define the "principal activity": unconventional reserves >30% or if revenues linked to unconventional oil and gas extraction and production > 30%".

- **Controversial weapons:** We do not invest in companies involved in the production, trading and storage of controversial weapons. These include cluster ammunition and antipersonnel landmines, chemical and biological weapons, and nuclear/depleted uranium weapons. Most of these weapons are covered by international conventions and investments are already prohibited by some jurisdictions.
- **Asbestos:** We do not invest in companies involved in the extraction or production of asbestos fibres which are banned today in more than 50 countries.

PALM OIL

Background

Development of oil palm plantations can have several adverse impacts on local communities, climate change and ecosystems. However, the environmental and social issues in the palm oil sector mainly depend on the way palm oil is produced and milled. Responsible palm oil can indeed limit these impacts. By contrast, palm oil production is a major source of income and provides a livelihood to millions of people in developing countries. It also serves as an important source of nutrition for families in many countries worldwide³.

Responsible players and sustainability practices exist in the palm oil sector, and as a global financial institution, BNP Paribas Asset Management is convinced that they should be supported. Such an approach can bring long-term benefits to its customers and to society at large. Several initiatives have been launched in order to address environmental and social issues and ensure a gradual shift towards good practices on the palm oil sector, one of the most prominent being the Roundtable on Sustainable Palm Oil (RSPO).

By following the RSPO Principles and Criteria as part of the certification process, palm oil companies commit to transparency, compliance with applicable laws and regulations, use of appropriate best practices, environmental responsibility, conservation of natural resources and biodiversity, responsible consideration of employees, of individuals and communities affected by growers and mills, as well as responsible development of new mills. RSPO members usually have a time-bound plan for full certification of all their operations.

BNP Paribas Asset Management believes that the RSPO has made, and is still making, a major contribution to the adoption of sustainability practices within the palm oil sector, through its wide-reaching, consensus-based, and multi-stakeholder approach. BNP Paribas is also a RSPO member.

An increasing number of companies have taken further steps by taking “No Deforestation, No Peat, No Exploitation” (NDPE) commitments, applicable to their entire supply chains. BNP Paribas is fully supportive of these commitments and encourages the dissemination of these best practices to other actors in the palm oil sector.

As a participant to the Soft Commodities Compact, BNP Paribas is committed to participate in the alignment of the banking industry practices with the objective of achieving zero net deforestation by 2020 in the palm oil sector.

BNP Paribas Asset Management will consider new developments in this sector and might amend this policy to take them into account. Therefore, BNP Paribas Asset Management will continue, under certain conditions set out in this document, to invest in the palm oil sector as it believes that it can be produced in a sustainable way.

Companies Concerned.

This policy applies to companies directly involved in the upstream and downstream palm oil value chain and companies for which it represents a significant part of their activities:

- “Upstream” refers to crude palm oil production (plantations and/or mills).
- “Downstream” refers to crude palm oil refining and/or trading.

Other companies further down the value chain (producers or traders of palm oil derivatives, or manufacturers and retailers of ingredients and products containing palm oil) are not in the scope of this policy. This policy also applies to the development of new palm oil projects (plantations and/or mills).

UPSTREAM PALM OIL COMPANIES

Mandatory Requirements

BNP Paribas Asset Management requires that Upstream Palm Oil Companies (plantations and mills):

- Be RSPO members (or have a time-bound plan to become RSPO members);
- Have published an up-to-date communication on progress;
- Have a time-bound plan for full RSPO certification of their operations.

In addition, BNP Paribas Asset Management requires that Upstream Palm Oil Companies:

- Have a policy in place prohibiting the use of child or forced labour;

³ See for example: “Key Sustainability Issues in the Palm Oil Sector – A Discussion Paper for Multi-Stakeholders Consultations”, Cheng Hai Teoh, for the World Bank Group, 2010.

- Have a human resources policy in place covering key labour issues of the sector – incl. no human trafficking, payment of minimum wage, maximum working hours, and the right to freedom of association and collective bargaining – covering all workers including contract, temporary, casual and migrant workers (as applicable);
- Have a policy in place to protect workers' health and safety conditions, and disclose their safety track record (work accidents, fatalities...);
- Have a policy in place to obtain the free, prior and informed consent (FPIC) of indigenous and local communities, prior to developing new oil palm plantations;
- Have a formal grievance mechanism in place to identify and address concerns from their internal and external stakeholders;
- Have a policy in place to conduct High Conservation Value (HCV) assessments before developing new oil palm plantations, and to protect the HCV areas identified within their concessions;
- Have a policy in place to conduct High Carbon Stock (HCS) assessments before developing new oil palm plantations⁴, and to protect the HCS forests identified within their concessions.
- Do not develop new oil palm plantations on:
 - UNESCO World Heritage Sites;
 - Wetlands on the Ramsar list;
 - Alliance for Zero Extinction sites;
 - IUCN Category I-IV areas.
- Have the following policies in place, in order to minimise GHG emissions:
 - No-burning for the development of oil palm plantations;
 - No development of new oil palm plantations on peatlands, regardless of depth;
 - Implement best management practices for existing oil palm plantations located on peatlands;
 - Minimise the use of artificial fertilisers;
 - Reduce GHG emissions from palm oil mills⁵.
- Do not use, except in very specific and exceptional situations, pesticides that are categorised as WHO Class Ia or Ib, or that are listed by the Stockholm or Rotterdam Conventions;
- Have a policy in place to minimise the use of pesticides, and have a time-bound plan to terminate the use of paraquat;

BNP Paribas Asset Management requires that Upstream Palm Oil Companies have a time-bound plan to ensure that all their third-party suppliers of fresh fruit bunches are compliant with their sustainability commitments and policies.

BNP Paribas Asset Management also requires that Upstream Palm Oil Companies have a time-bound plan for public reporting on the implementation of their sustainability commitments, and for the independent verification of such reporting. It should be noted that several of the above requirements are consistent with the “No Deforestation, No Peat, No Exploitation” (NDPE) commitments taken by an increasing number of palm oil companies.

BNP Paribas Asset Management requires that Downstream Palm Oil Companies (i.e. refiners and traders):

- Be RSPO members (or have a time-bound plan to become RSPO members);
- Have published an up-to-date communication on progress;
- Have a time-bound plan to achieve full RSPO certification of their operations.

Evaluation Criteria

BNP Paribas Asset Management will assess whether Upstream Palm Oil Companies (plantations and mills):

- Have a time-bound plan for full RSPO certification of their fresh fruit bunches supply base (or similar verification mechanism for smallholders⁶);
- Have a policy to increase yields of oil palm plantations;
- Are working with smallholders on good agricultural practices, yield improvement and RSPO certification (or similar verification mechanism), through the provision of technical assistance and training;

⁴ As of the publication date of this Policy, the HCS Approach resulting from the convergence process that ended in November 2016 is considered as the best available methodology: <http://highcarbonstock.org/agreement-on-unified-approach-to-implementing-no-deforestation-commitments/>

⁵ Such as through (i) the implementation of methane (CH₄) capture from palm oil mill effluent (POME) and (ii) the reduction of fossil fuel use through implementation of more efficient processes and/or substitution with other energy sources (e.g. residues such as fibre and shell, methane captured from POME).

⁶ According to the RSPO, smallholders are “farmers who grow oil palm, alongside with subsistence crops, where the family provides the majority of labour and the farm provides the principal source of income, and the planted oil palm area are is less than 50 hectares”

- Have adopted the necessary tools and practices to monitor implementation of their no deforestation commitments, notably throughout their supply chain⁷;
- Have submitted to the RSPO concession maps for all the countries in which they operate, where permitted by law;
- Have a policy in place covering fire prevention, monitoring and suppression on the land they manage and in the vicinity of their estates;
- Have been regularly and repeatedly criticised for their environmental, social or governance performance on material issues, including through complaints submitted to the RSPO Complaints System, and whether they have taken actions to address such issues.

DOWNSTREAM PALM OIL COMPANIES

Mandatory requirements

BNP Paribas requires that Downstream Palm Oil Companies (i.e. refiners and traders):

- Be RSPO members (or have a time-bound plan to become RSPO members);
- Have published an up-to-date communication on progress;
- Have a time-bound plan to achieve full RSPO certification of their operations.

Evaluation Criteria

In addition, BNP Paribas Asset Management will assess whether Downstream Palm Oil Companies (i.e. refiners and traders):

- Have a time-bound plan to trade and/or process only RSPO-certified palm oil;
- Are working to improve the traceability of their palm oil supply;
- Have a time-bound plan to ensure that their palm oil suppliers are compliant with the following standards:
 - No development in HCS forests;
 - No development in HCV areas;
 - No burning for the development of new plantations;
 - No development on peat, regardless of depth.
 - No use of child/forced labour
 - Respect land tenure rights, incl. the free, prior and informed consent of indigenous and local communities
 - Have a human resources policy covering all workers (no human trafficking, payment of minimum wage, maximum working hours, and the right to freedom of association and collective bargaining)
- Have been regularly and repeatedly criticised for their environmental, social or governance performance on material issues, including through complaints submitted to the RSPO Complaints System, and whether they have taken actions to address such issues.

Sector Glossary

The following definitions apply in this policy:

ASEAN Policy on Zero Burning: In response to the land and forest fires that affected the ASEAN region in 1997/98, the ASEAN Environment Ministers agreed to adopt the policy on zero burning at the 6th ASEAN Ministerial Meeting on Haze in April 1999, and to promote its application by plantations in the region. Guidelines for the implementation of this policy have been developed to provide advice to plantation owners, managers, supervisory staff and contractors on the application of the zero burning technique for oil palm plantations development (http://haze.asean.org/?wpfb_dl=163).

Free, Prior and Informed Consent (FPIC): The principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use⁸.

According to the RSPO Principles & Criteria 7.5: “No new plantings are established on local peoples’ land where it can be demonstrated that there are legal, customary or user rights, without their free, prior and informed consent. This is dealt with through a documented system that enables these and other stakeholders to express their views through their own representative institutions”.

Greenhouse gas (GHG) emissions: In the palm oil sector, GHG emissions are mainly the result of:

- Land use change (deforestation, peatlands drainage, vegetation burning), and the use of fossil fuels in palm oil mills, leading to emissions of carbon dioxide (CO₂);

⁷ E.g. through aerial surveys (satellite imagery, use of drones) or field surveys.

⁸ <http://www.forestpeoples.org/guiding-principles/free-prior-and-informed-consent-fpic>

- Production, transport and application of artificial fertilisers, leading to emissions of CO₂ and nitrous oxide (N₂O);
- Anaerobic decomposition of organic material in palm oil mill effluents, leading to emissions of methane (CH₄).

High Carbon Stock (HCS) Forests: Initial work on the HCS methodology started in 2011 through multi-stakeholder field-based research in Indonesia and Africa, with the objective to identify land that is forest and should be conserved, and land that is degraded and can be developed. HCS forests are those identified as High, Medium, Low Density and Young Regenerating Forests under the following vegetation strata characteristics:

- High Density Forest: Remnant forest of advanced secondary forest close to primary condition;
- Medium Density Forest: Remnant forest but more disturbed than High Density Forest;
- Low Density Forest: Appears to be remnant forest but is highly disturbed and recovering;
- Young Regenerating Forest: Mostly young regrowth forest but with occasional patches of older forest;
- Scrub: Recently cleared areas with some woody regrowth and grass-like ground cover;
- Cleared/Open Land: Very recently cleared land with mostly grass or crops and few non-crop woody plants;
- Scrub and Cleared/Open Land areas may be developed.

Following 12 months of discussions, in November 2016 the two different HCS methodologies that had been developed in parallel have been merged into the High Carbon Stock Approach (HSCA).

High Conservation Value (HCV) areas: The areas necessary to maintain or enhance one or more High Conservation Values defined as follows⁹:

- Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels (e.g. the presence of several globally threatened bird species);
- Large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance. (e.g. a large tract of Mesoamerican flooded grasslands and gallery forests with healthy populations of Hyacinth Macaw, Jaguar, Maned Wolf, and Giant Otter, as well as most smaller species);
- Rare, threatened, or endangered ecosystems, habitats or refugia (e.g. patches of a regionally rare type of freshwater swamp); Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes (e.g. forest on steep slopes with avalanche risk above a town);
- Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or indigenous peoples (e.g. key hunting areas for communities living at subsistence level);
- Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples (e.g. sacred burial grounds within a forest management area or new agricultural plantation).

Key Biodiversity Area: KBAs incorporate information from the IUCN Red List of Threatened Species, BirdLife International's Important Bird Areas, Plantlife International's Important Plant Areas, IUCN's Important Sites for Freshwater Biodiversity, and sites identified by the Alliance for Zero Extinction. KBAs are identified at the national, sub-national or regional level by local stakeholders using the two globally standard criteria of vulnerability and irreplaceability, and therefore must contain:

- One or more globally threatened species;
- One or more endemic species which are globally restricted to the site or surrounding region;
- Significant concentrations of a species (e.g. important migratory stops, nesting sites, nurseries or breeding areas); and/or
- Globally significant examples of unique habitat types and species assemblages.

For more information, please see <http://www.biodiversitya-z.org/content/key-biodiversity-areas-kba>

Local communities: People living in or near a site intended to be converted into a palm oil plantation, and who can be adversely affected by such a development.

⁹ HCV Resource Network (<http://www.hcvnetwork.org/about-hcvf/the-six-high-conservation-values>).

Paraquat: The trade name for one of the most widely used herbicides. It is quick-acting and non-selective, killing green plant tissue on contact. It is toxic to animals and human beings, and linked to development of Parkinson's disease. In the United States, paraquat is classified as "restricted use", which means that it can be used by licensed applicators only. In the European Union, paraquat has been forbidden since 2007.

Palm oil mill / palm oil mill effluent: A palm oil mill processes fresh fruit bunches coming from oil palm plantations and produces crude palm oil (CPO). The CPO is usually then sold to traders or refiners (i.e. downstream palm oil companies) for further processing. Palm Oil Mill Effluent (POME) is the liquid waste resulting from the CPO production process, highly acidic and with high biological and chemical oxygen demand.

Peatland: A soil that contains at least 65% organic material, is at least 50 cm in depth, covers an area of at least 1 ha, and is acidic in nature (Driessen, 1978; Wösten & Ritzema, 2001).

Rotterdam Convention: The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals, signed in 1998 and effective in 2004. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labelling, include directions on safe handling, and inform purchasers of any known restrictions or bans. Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty (<http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx>), and exporting countries are obliged to make sure that producers within their jurisdiction comply.

RSPO Principles and Criteria (2013): The RSPO Principles and Criteria for Sustainable Palm Oil Production are the standard against which palm oil producers can be certified. Each of the following eight principles is declined into criteria (<http://www.rspo.org/resources/key-documents/certification/rspo-principles-and-criteria>):

- Principle 1: Commitment to transparency
- Principle 2: Compliance with applicable laws and regulations
- Principle 3: Commitment to long-term economic and financial viability
- Principle 4: Use of appropriate best practices by growers and millers
- Principle 5: Environmental responsibility and conservation of natural resources and biodiversity
- Principle 6: Responsible consideration of employees and of individuals and communities affected by growers and mills
- Principle 7: Responsible development of new plantings
- Principle 8: Commitment to continuous improvement in key areas of activity

Stockholm Convention: The Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs).

The list of such substances can be found below: <http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx>

UNESCO World Heritage Sites: Designated cultural and natural heritage areas around the world that are considered to be of outstanding value to humanity and which are listed under the World Heritage Convention (<http://whc.unesco.org/en/list>).

Wetlands on the Ramsar list: These wetlands are defined as "Sites containing representative, rare or unique wetland types" or "Sites of international importance for conserving biological diversity" listed in the Convention on Wetlands adopted in Ramsar, Iran in 1971 (<http://www.ramsar.org/>).

WHO Class Ia or Ib pesticides correspond to the pesticides that pose the greatest risks to human health according to the World Health Organisation's Recommended Classification of Pesticides by Hazard (http://www.who.int/ipcs/publications/pesticides_hazard/en/), Ia being "extremely hazardous" and Ib being "highly hazardous".

WOOD PULP

Background

- The demand for paper product is set to increase significantly over the coming years and this development is likely to have significant impacts on the sustainability efforts of the sector. Regarding the pulp and paper production chain, most of these impacts are recognised to be concentrated in the forestry management phase and wood pulp production process. BNP Paribas Asset Management, in accordance with BNPP Group, identifies five main sustainability issues linked to the wood pulp industry: environmental and biodiversity issues linked to the deforestation and the industrial wood plantations to supply wood resources to the pulp mills;
- Social issues linked to the development of a pulp mill or an industrial wood plantation project; (respect of local people rights, involvement of local communities, job development...)
- Water and wastewater management in the pulp process, particularly dioxin emissions from bleaching;
- Occupational health and safety in wood plantations and pulp mills;
- Environmental management in pulp mills (including air emissions and waste management).

Regarding forestry management/harvesting and the wood supply chain, The Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification Schemes (PEFC) are the two main international certification schemes. They provide assurance for the sustainable management of the forest. FSC or PEFC certification brings concrete answers to the main CSR issues related to plantation and forest management, but one has to take into consideration that today only 9% of the world's forests are certified by these two forest certification organisations. We are aware though that other certification schemes exist that contribute to sustainable forest management.

In relation to the wood pulp production process, the Group has noted that, as for all heavy industrial activities, the activity generates various polluting effluents in water, soil and air and may raise health and safety issues for the pulp mill workers and surrounding communities. Environmental Management System (EMS) and Health and Safety Management System (HSMS) are today a recognised way to manage such issues.

BNP Paribas Asset Management will continue, under certain conditions set out in this document, to invest in wood pulp sector as it believes that it can be produced in a sustainable and responsible way.

Companies Concerned

These guidelines apply to companies directly involved in the upstream or downstream wood pulp value chain.

Upstream refers to the industrial wood plantations and forest harvesting activity of pulp producers, whereas downstream refers to wood pulp producers, including for their own use, and traders.

Other companies further up or down the value chain (paper making companies which do not produce their own pulp, chemicals manufacturers and machinery manufacturers as well as paper retailers and distributors) are not within the scope of these guidelines.

Mandatory Requirements for Forestry Management

BNP Paribas Asset Management requires that upstream pulp companies comply with existing social and environmental laws, at a local or state/provincial level, as well as with international regulations ratified by their operating countries. These include Convention on International Trade on Natural Species of Wild Flora and Fauna, Convention on Biological Diversity, International Labour Organisation Convention 169 Concerning Indigenous & Tribal Peoples in Independent Countries, ILO Conventions on Forced Labour and Worst Forms of Child Labour.

In order to ensure that basic social requirements are met and to limit negative impacts on climate change and biodiversity, BNP Paribas Asset Management requires that upstream pulp companies:

- Do not use child or forced labour manpower;
- Will not develop a new plantation on land owned or occupied by local communities without having (and in line with the FSC or PEFC principles and criteria):
 - Conducted a free, prior and informed consultation process,
 - Achieved an acceptable compensation arrangement, and
 - Implemented an efficient grievance mechanism.

- Do not use illegally harvested wood¹⁰;
- Do not convert UNESCO World Heritage Sites into industrial wood plantations;
- Do not convert Wetlands on the Ramsar list into industrial wood plantations;
- Conduct a High Conservation Value (HCV) assessment before developing a new plantation;
- Do not convert High Conservation Value forests (HCVF) into new plantations. In case a company's plantation is located on land formerly occupied by HCVF, the clearing must have occurred no later than 2001, and the company shall certify (and to the extent feasible demonstrate) that it is not responsible directly or indirectly for such conversion;
- Have a clear and stringent peat land management procedure in place for any new plantation located on peat land;
- Have a no-burn policy, in line with the recommendations of the ASEAN policy on zero burning or other regional best practice;
- Provide a monitoring plan of the workforce health & safety conditions on a regular basis.

Evaluation Criteria for Forestry Management

BNP Paribas Asset Management encourages upstream pulp companies to move towards higher standards of sustainability. Concerning forest management, BNP Paribas Asset Management believes FSC and PEFC are currently the best available set of criteria for sustainability in this industry and encourages upstream pulp companies:

- To become an active member of their national FSC or PEFC multi-stakeholders governance systems (or any equivalent forest management initiative that may emerge);
- In the case of pulp producers buying wood from external parties, to ask to their suppliers to have their forest or plantation FSC or PEFC certified or to design and implement action plans to have the forest or the plantation certified within a five-years period¹¹;
- In the case of forest and plantation managers, to have their forest or plantation FSC or PEFC certified or to design and implement action plans to have the forest or the plantation certified within a five-years period¹².
- BNP Paribas Asset Management also encourages upstream pulp companies to present a clear and stringent environmental management procedure for existing plantations. This procedure will clearly indicate how the project is dealing with agro-chemicals, water and biodiversity management. In case of an external supply of wood for the pulp mill, the company must ask such procedure to its suppliers.
- BNP Paribas Asset Management strongly encourages upstream pulp companies to develop alternatives to plantations on peat lands, as peatlands are valuable for the various and crucial ecosystem services they provide. These functions and values include biodiversity maintenance, carbon and water storage, as well as water regulation and quality.

Mandatory Requirements for Pulp Production

BNP Paribas Asset Management requires that pulp producers comply with existing social and environmental laws, at a local or state/provincial level, as well as with international regulations ratified by their operating countries.

Concerning wood supply, pulp producers must verify that their wood sourcing respect the mandatory requirements applicable to Forestry Management.

BNP Paribas Asset Management is aware that Absorbable Organic halogens (AOX) may be emitted in the water when the process uses a bleaching step. This particular type of pollution coming from pulp mills has been pointed out by NGOs and health organisations. Over recent years, chlorine and hypochlorite have largely been phased out as primary bleaching chemicals. Indeed, Elementary Chlorine Free (ECF) and Totally Chlorine Free (TCF) processes allow obtaining concentrations of dioxins and furans in the effluents that are under the detections limits. BNP Paribas believes that ECF and TCF are so far the best available techniques to manage sustainable bleaching.

As a result BNP Paribas requires that pulp producers:

- Will develop new pulp mills using ECF or TCF technology if the bleaching process is necessary;
- Will make the transition of their process towards ECF or TCF technology in case of already existing plants;

¹⁰ Illegal logging definition for this policy is the list of illegal logging acts given by the FAO Committee on Paper and Wood Products in their study *Defining illegal logging: what it is, and what is being done about it?* (2003).

¹¹ This five-year period will start at the official publication date of this policy.

¹² *ibid*

- Will present a management plan to monitor and control various water effluents level and air emission indicators listed by the applicable IFC Environmental, Health, and Safety (EHS) Guidelines for Pulp and Paper Mills. As of the publication date of this policy, these parameters are the followings: Flow, pH, TSS, COD, BOD5, AOX, Total N, Total P¹³ ;
- Provide a monitoring plan of the workforce health and safety conditions on a regular basis.

Evaluation Criteria for Pulp Production

BNP Paribas Asset Management encourages downstream pulp companies to move towards higher standards of sustainability. BNP Paribas Asset Management believes that FSC and PEFC are currently the best available set of criteria for fibre sourcing sustainability in the pulp industry and encourages downstream pulp companies (i.e. pulp producers and traders):

- To obtain the FSC or PEFC Chain of Custody (CoC) certification for their activities. They are also encouraged to set up policies requiring that their suppliers (i) have their own plantations FSC or PEFC certified within a five-year period as well as (ii) encourage the traceability of sources of wood for the pulp industry by securing FSC or PEFC CoC certification for their activities. In any case, downstream pulp companies should present a credible sourcing plan for wood (at the beginning of the project in case of new pulp mills); mentioning if needed an external supply of wood and specifying what is this external source;
- To become an active member of their national FSC or PEFC multi-stakeholders governance systems (or any equivalent forest management initiative that may emerge);

Concerning water and air emissions, BNP Paribas Asset Management encourages pulp producers:

- To ensure that emission levels at all their pulp mills are under or equal to the levels presented in the IFC EHS Guidelines for Pulp and Paper Mills (Annex B on “Effluents and Emissions Guidelines”). In the case they are higher than such emission levels, BNP Paribas encourage pulp producers to develop efficient action plans to correct these deviations and decrease emissions until they are below the IFC’s levels.
- To present (at the beginning of the project in case of a new pulp mill) a credible energy sourcing plan and the impact of this energy mix on CO₂ emissions.

In relation to Environmental & Social Management Systems (ESMS) and Health & Safety Management Systems (HSMS), BNP Paribas Asset Management believes that ISO 14001 and OHSAS 18001 are currently the best available sustainability certificates for industrial processes and BNP Paribas Asset Management encourages pulp producers:

- To set up and implement an EMS dealing with air, water emissions, waste management, soil and groundwater contamination and to develop a plan to have their activities ISO 14 001 (or equivalent EMS certification scheme) certified within a five-years period¹⁴;
- To set up and implement a HSMS and to develop a plan to have their activities OHSAS 18 001 (or equivalent HSMS certification scheme) certified within a five-year period¹⁵.

Key Definitions

The following definitions apply in these guidelines:

AOX: Absorbable Organic halogen is a group of halogenated organic substances that are able to absorb onto activated carbon.

ASEAN no burn policy: In response to the land and forest fires that affected the ASEAN region in 1997/98, the ASEAN Environment Ministers agreed to adopt the policy on zero burning at the 6th ASEAN Ministerial Meeting on Haze in April 1999, and to promote its application by plantations in the region. The guidelines for the implementation of this policy have been developed to provide advice to plantation owners, managers, supervisory staff and contractors on the application of the zero burning technique for development of oil palm plantations¹⁶.

BOD5: Biological Oxygen Demand measures the amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material.

¹³ More specifically, such indicators are listed in the Annex B “Effluents and Emissions Guidelines / Resource Use Benchmarks” of the IFC EHS Guidelines on Pulp and Paper Mills.

¹⁴ This five-year period will start at the official publication date of this policy for companies.

¹⁵ Ibid.

¹⁶ <http://www.rspo.org/?q=page/864>

COD: Chemical Oxygen Demand (COD) measures the amount of organic compounds in water.

ECF: Elementary Chlorine Free (ECF) is the process for bleaching the pulp. It allows obtaining concentrations of dioxins and furans in the effluents that are under the detections limits.

EMS: Environmental Management System. It can be recognised by an ISO 14 001 certification or equivalent.

FSC Principles and Criteria established in 1993 (as reported in the Sustainable Forest Finance Toolkit of the WBCSD). FSC is a system of national and regional standards consistent with 10 principles of SFM that cover the following issues:

1. Compliance with laws and FSC principles
2. Tenure and use rights and responsibilities
3. Indigenous people's rights
4. Community relations and workers' rights
5. Benefits from the forests
6. Environmental impact
7. Management plans
8. Monitoring and assessment
9. Special sites – high conservation value forests (HCVF)
10. Plantations

These principles were developed by a global partnership of stakeholders convened by FSC. The principles apply to all tropical, temperate and boreal forests and are to be considered as a whole. All national and regional standards are derived in-country from the 10 principles. The principles are expected to be used in conjunction with national and international laws and regulations, and in compatibility with international principles and criteria relevant at the national and sub-national level (FSC Policy and Standards; principles and criteria of forest stewardship) (FSC, 1996). There is variation in regional standards and in interim standards adopted by auditing bodies.

High Conservation Value Forests (HCVF): are defined as follows (from the Forest Stewardship Council, reported in the Sustainable Forest Finance Toolkit of the WBCSD¹⁷):

- Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species);
- Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
- Forest areas that are in or contain rare, threatened or endangered ecosystems;
- Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control);
- Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health);
- Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

H&S: Health and Safety Management System. It can be recognised by an OHSAS 18 001 certification or equivalent.

Local community: broad group of people living in or near a forest or plantation, with significant level of dependence on it. The term includes forest dwellers, indigenous forest-adjacent populations and recent immigrants. (Source: IFC Operational Policy on Forestry).

Peatlands: Wetland in which substantial peat accumulation--at least one foot (30 cm)--has taken place¹⁸. The peatland substrate is an organic structure built by biological activity. Peatlands are valuable for the various and crucial ecosystem services they provide. These functions and values include biodiversity maintenance, carbon and water storage, solute detention and water regulation and quality.

- Firstly, undrained peatlands are unique natural resources forming distinct ecosystems of great biodiversity importance for the maintenance of genetic, species and habitat levels.

¹⁷ http://www.pwc.co.uk/eng/issues/forest_finance_home.html

¹⁸ Charman, D. 2002. Peatlands and environmental change. J. Wiley & Sons, London & New York, p. 301

- Peatlands are also water catchments. They modify water quality and quantity, act as sinks for some substances, produce others, and influence the temporal pattern of water supply to rivers and lakes. The role of peatlands in water regulation depends on maintaining the integrity of their unique hydrology that is independent of but linked to that of adjacent wetlands and the wider landscape.
- Finally, peatlands have been major global carbon stores for millennia. Peatlands also emit CO₂ and CH₄, the amounts being influenced by temperature and water level, both of which are likely to be affected by removal of vegetation, drainage and future climate change. Agriculture on drained peatlands leads to substantial emissions of carbon dioxide and nitrous oxide (N₂O)¹⁹.

PEFC Principles and Criteria established in 1999 (as reported in the Sustainable Forest Finance Toolkit of the WBCSD).

PEFC is a mutual recognition mechanism for national and regional certification systems. Endorsed certification systems are to be consistent with internationally agreed environmental, social and economic requirements such as the Pan-European Operational Level Guidelines (PEOLG), the African Timber Organisation (ATO) and International Tropical Timber Organisation's (ITTO) Guidelines, as well as intergovernmental processes on criteria and indicators for SFM. The elements of SFM covered by these requirements may vary to fit the circumstances of the areas for which they were developed. For instance, the Pan-European Operational Level Guidelines cover the following:

1. Maintenance and enhancements of forest resources and their contribution to global carbon cycles
2. Maintenance and enhancement of forest ecosystem health and vitality
3. Maintenance of productive functions of forests
4. Maintenance, conservation and enhancement of biodiversity
5. Maintenance and enhancement of protective functions in forest management
6. Maintenance of socioeconomic functions and conditions

Endorsed certification systems are expected to be consistent with international agreements such as ILO core conventions, as well as conventions relevant to forest management and ratified by the countries such as the Convention on Biological Diversity (CBD), CITES and others. There is variation among member certification standards, with some standards exceeding PEFC requirements (PEFC, 2006A).

pH: In chemistry, pH is a measure of the acidity or basicity of an aqueous solution.

Ramsar sites: "Sites containing representative, rare or unique wetland types" and "Sites of international importance for conserving biological diversity" listed in the Convention on Wetlands adopted in Ramsar, Iran in 1971 (Ramsar convention²⁰).

TCF: Totally Chlorine Free (TCF) process for bleaching the pulp replace totally the chlorine by an oxygen bleaching process.

Total N: Total quantity of Nitrogen.

Total P: Total quantity of Phosphor.

TSS: Total Suspended Solids is a water quality measurement, measuring the non-filterable solids concentration in the water.

UNESCO World Heritage areas: Designated cultural and natural heritage areas around the world that are considered of outstanding value to humanity and which are listed under the World Heritage Convention²¹

¹⁹ Sources: Assessment on Peatlands, Biodiversity and Climate change, UNEP-GEF 2007, Strategy for responsible peatland management, IPS 2010

²⁰ http://www.ramsar.org/cda/en/ramsar-documents-list/main/ramsar/1-31-218_4000_0

²¹ <http://whc.unesco.org/en/list/>

NUCLEAR POWER GENERATION

Background

In 2010, the worldwide nuclear power sector provided around 2 755 TWh, almost 1/8th of the electricity produced in the world²². The most important producing countries are the United States of America (with 104 nuclear reactors) and France (58 reactors)²³. According to the IEA²⁴, the share of nuclear power in generation will continue increasing with more than 130 GW of new additions over the period between 2010 and 2035 and extended lifetime for several plants.

Furthermore, countries that chose to develop their nuclear industry consider that it has positive impacts, especially on economic development, energy security of supply and greenhouse gas emissions reduction.

BNP Paribas Asset Management, as a financial institution, may provide financial products and services to governmental entities supporting and / or to companies developing civil nuclear power. BNP Paribas Asset Management considers that it is essential - both for the countries under consideration and for the international community as a whole - that any country undertaking a nuclear power program or developing additional nuclear power plants is not only willing but also capable of meeting essential requirements regarding safety, security, non-proliferation, protection of populations and of the environment for future generations.

BNP Paribas Asset Management has defined the present sector policy to identify specific requirements to select companies that take into account the above-mentioned considerations.

This policy may evolve over time. BNP Paribas Asset Management will especially consider and take into account studies and policies regarding best practices for nuclear plants for electricity generation and may update this document based on new information and parallel initiatives.

Companies Concerned.

These guidelines apply to companies involved in a Nuclear Power Plant (NPP) as owner or operator of the nuclear island, and to companies involved in the nuclear fuel cycle (defined as uranium enrichment, fuel fabrication, used fuel recycling and/or storage and disposal of nuclear waste).

BNP Paribas Asset Management expects Nuclear Companies to comply with existing local laws and licensing arrangements as well as with international conventions ratified by their operating countries. In addition to compliance with these regulations, these guidelines set additional criteria to be respected by Nuclear Companies.

Mandatory Requirements applicable to Companies involved in a Nuclear Power Plant (NPP)

The Nuclear Company only owns or operate NPPs whose nuclear reactors have a design which is similar to reactors operated in a Reference Nuclear Country or which has been validated by the NSA of a Reference Nuclear Country,

The Nuclear Company has a global policy ensuring radiation monitoring (both on site and around the site) and the protection of workers.

There is an independent chain of control to monitor the safety of the nuclear operations.

The following requirements have to be applied to the incorporation country of the Nuclear Company and of its parent company

- (i) Proper legal framework:
 - An official approval by the government and the supervising bodies of the civil nuclear power sector has been obtained for the NPP project;
 - Protection of workers is required in the regulatory framework;
 - Existence of a plan for the development of long-term solutions for the management of high and intermediate level nuclear waste;
 - Existence of a plan for the dismantling of NPPs.

²² 2012 World Energy Outlook. 2 756 TWh in 2010 were generated through nuclear power, i.e. 12.9% of the total 21,431 TWh generated in the world
<http://www.iea.org/publications/freepublications/publication/kwes.pdf>

²³ http://www.iaea.org/About/Policy/GC/GC56/GC56Documents/French/gc56-2_fr.pdf

²⁴ http://www.worldenergyoutlook.org/docs/weo2010/WEO2010_ES_English.pdf

(ii) International cooperation:

- Host country is signatory to the Non Proliferation Treaty (or an equivalent bi-lateral agreement on nuclear energy safety and proliferation with a Reference Nuclear Country);
- The last available Comprehensive Safeguards Agreement Report by the IAEA doesn't mention any specific issues or any lack of information that would hinder the monitoring of the nuclear facilities of the host country;
- The NPPs of the host country dedicated to producing electricity are used for peaceful purposes⁴;
- Participation in the IAEA Incident Reporting System (IRS) (in case of a country with no prior nuclear facility, this participation is planned before the commissioning of the first NPP in such new entrant country).

(iii) Nuclear Safety Agency:

- Existence of a Nuclear Safety Agency (NSA) or an equivalent state agency that covers at least the control of Nuclear Power Plants throughout its life cycle;
- The NSA has the statutory power to run inspections that can lead to sanctions.

(iv) Political stability and country security:

Host country offers a satisfactory level of stability allowing visibility over a safe and long-term operation of the NPP. This level of stability and security is assessed against the following criteria:

- Host country is not subject to international sanctions;
- NPP project is not located in a conflict zone⁵;
- Existence of national and/or local prevention and emergency plans adapted to the geographical specifics, including external hazards (such as flooding or earthquake risks).

Evaluation Criteria applicable to Companies involved in a Nuclear Power Plant (NPP)

In addition to the above mandatory requirements, BNP Paribas Asset Management will consider further evaluation criteria to assess the standards of Nuclear Companies against those of the main Nuclear Companies of a Reference Nuclear Country (for those involved in a NPP). The objective of these criteria is to evaluate the capacity of the Nuclear Company to effectively monitor and mitigate environmental and social impacts.

BNP Paribas Asset Management will therefore evaluate their long-term financial strength as well as their experience (including experience of their top management) and track record regarding safety, security and the environment. BNP Paribas Asset Management will also evaluate the thoroughness of their subcontractor selection process, their transparency, as well as their cooperation with peers and supervisory bodies (in particular those from Reference Nuclear Countries).

Mandatory Requirements applicable to Companies involved in the Nuclear Fuel Cycle

The mandatory requirements detailed above for NPPs have to be applied to the incorporation country of the Nuclear Company and of its parent company.

Operating licenses of the Nuclear Company are not suspended in the host country, nor in any Reference Nuclear Country.

There is an independent chain of control to monitor the safety of the nuclear operations.

The Nuclear Company has put in place policies and procedures to prevent and limit any radiation emission.

a. Evaluation Criteria applicable to Companies involved in the Nuclear Fuel Cycle

In addition to the above mandatory requirements, BNP Paribas Asset Management will consider further evaluation criteria to assess the standards of Nuclear Companies against those of the main Nuclear Companies of a Reference Nuclear Country (for those involved in the nuclear fuel cycle). The objective of these criteria is to evaluate the capacity of the Nuclear Company to effectively monitor and mitigate environmental and social impacts.

BNP Paribas Asset Management will therefore evaluate their long-term financial strength as well as their experience (including the experience of their top management) and track record regarding safety, security and environment. BNP Paribas Asset Management will also evaluate the thoroughness of their subcontractor selection process, their transparency, as well as their cooperation with peers, supervisory bodies (in particular those from Reference Nuclear Countries), and international research programs.

Key Definitions

Comprehensive Safeguards Agreements: “Safeguards are activities by which the IAEA can verify that a State is living up to its international commitments not to use nuclear programs for nuclear-weapons purposes” (Extract from IAEA FAQ). Comprehensive Safeguards Agreements are set between countries and the IAEA to enable the latter to pursue various such verifications.

IAEA: International Atomic Energy Agency. The IAEA is the United Nations’ centre of cooperation in the nuclear field. It was set up in 1957 and works with its Member States and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies.

INES Scale: International Nuclear and Radiological Event Scale. It is a tool for communicating to the public in a consistent way, the safety significance of nuclear and radiological events (including events from industrial and medical use of radiation sources, operations at nuclear facilities and transport of radioactive material).

Events are classified on the scale at 7 levels:

- Levels 1–3 are called "incidents"
- Levels 4–7 are called "accidents".

The scale is designed so that the severity of an event is about ten times greater for each increase in level on the scale. Events without safety significance are called “deviations” and are classified Below Scale / Level 0.

IRS: Incident Reporting System. IRS is a joint initiative of IAEA and NEA (OECD Nuclear Energy Agency). This worldwide system collects and analyses information provided by operators. Its ultimate objective is to enhance the safety of NPPs by reducing the frequency and severity of safety significant unusual events at NPPs worldwide.

OECD: Organisation for Economic Cooperation and Development. High income OECD countries are those with a Gross National Income (GNI) per capita of \$12,196 or more, based on the World Bank Atlas method.

NPP: Nuclear Power Plant. Power plant based on nuclear fission designed and operated for the production of electricity.

NPT: Non-proliferation treaty. The NPT is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote co-operation in the peaceful uses of nuclear energy and to help in achieving nuclear disarmament and general and complete disarmament.

NSA: Nuclear Safety Agency. The NSA is a generic term for the administrative authority in charge of ensuring nuclear control and safety. It regulates nuclear safety and radiation protection in order to protect workers, patients, the public and the environment. It also contributes to informing the citizens.

Nuclear fuel cycle: for the purpose of this policy, the nuclear fuel cycle comprises the following activities: uranium enrichment, fuel fabrication, used fuel recycling and/or storage and disposal of nuclear waste.

Reference Nuclear Country: Defined as any country having demonstrated a high level of nuclear safety and reliability in the operation of a large NPP fleet. BNP Paribas defines Reference Nuclear Countries as high income OECD countries with top tier experience in operating NPPs (measured in reactor-years) and no nuclear accidents – as defined by the level 4 and above of the INES scale – recorded on a NPP during the last five years.

AGRICULTURE

With 6% of the world's GDP and 30% of the employment¹, agriculture is a key sector in today's economies. Its importance is going to grow in the next decades: the global demand for agricultural commodities and food will increase as the world population is expected to approach 9 billion by 2050, with a major contribution of developing countries. In addition, the supply of agricultural goods could be threatened by the adverse impacts of climate change.

Agriculture is a major source of income and provides a livelihood to millions of people in both developed and developing countries. Globally there are around half a billion smallholder farmers growing half of the world's food needs on plots smaller than two hectares². Investing in agriculture is one of the most effective strategies for reducing hunger and promoting sustainability.

Technical and scientific evolutions have brought new agricultural practices. The business takes different forms from rain-fed farming to hydro culture, from small scale to large farms, from GMO based to artisanal agriculture.

If not managed properly, agriculture development can have several adverse impacts on local communities, ecosystems and climate change. These environmental and social issues can be tackled by a sustainable growth in the sector that is highly dependent on farming practices.

BNP Paribas Asset Management identifies the following key environmental and social stakes linked to the agriculture sector:

- Ecosystem and biodiversity
- Water use and water pollution, GHG emissions, use of agrochemicals
- Working conditions and human rights
- Health and safety
- Land tenure and local community rights
- Global food security
- Food safety and traceability
- Animal welfare

The following sector policy reflects our commitment to support the development of sustainable agricultural practices taking into consideration the key issues mentioned above.

Activities under scope

Agriculture activities covered in this policy are production of seeds/grains, farming, origination & collection operations and/or primary processing of agricultural products as defined below:

- Production of seeds/grains covers the selection and multiplication of seeds/grains for the purpose of distribution, storage or sale;
- Farming covers the cultivation of soil, production of crops and raising of livestock and poultry (breeding, feeding, and general care) and forest management (forestry);
- Origination & Collection operations cover the sourcing, the transport and storage logistics of agricultural products from where they are produced to a point where they are stored or undergo primary transformation. This includes activities of Physical agricultural products merchants and traders;
- Primary processing is the first transformation of raw agricultural products - e.g. oil crushing, cocoa grinding, sugar extraction, milk drying and slaughtering.

Agriculture activities not covered in this policy:

- Manufacturers or distributors of agricultural machinery, pesticides and fertilisers;
- Manufacturers of processed food and beverage; (secondary or further processed products, packaged food)
- Retailers of food and beverage;
- Fish, seafood and aquatic products;
- Palm oil and wood pulp related activities (please refer to their dedicated sector policies).

Mandatory requirements

BNP Paribas will only invest in agriculture companies which comply with the following requirements.

General environmental management*⁸

- Have a water Management Plan and disclose water consumption.

Ecosystem and biodiversity

- Are not involved in the trade of any plant or animal species or products governed by the Convention on International Trade in Endangered Species of Wild Fauna or Flora (CITES) not authorised by a CITES permit.

Working conditions and human rights

- Do not use child or forced labor⁹;
- Have a grievance mechanism in place through which workers' concerns can be raised and addressed;
- Respect the rights of workers to organise in a trade union or ensure workers' interest and voice can be heard within the company¹⁰;
- Do not discriminate against employees and applicant for employment¹¹.

Moreover:

- Have a Human Resources policy or a Code of Conduct.

Health & Safety

- Have a policy in place to protect worker's health and safety conditions and disclose health and safety track record.

Land tenure and local communities rights*

- Have a policy in place to obtain the Free, Prior and Informed Consent (FPIC) of the local communities impacted by new agriculture projects and have a grievance mechanism in place through which local communities' concerns can be raised and addressed;
- Do not engage in Land grabbing practices.

Food Safety and traceability

- Have a policy on food safety and traceability covering their sourcing and own operations.

Additional requirements for Farming activities

In addition to the requirement applying to all agriculture companies, BNP Paribas Asset Management will only invest in companies that:

Ecosystem and biodiversity

- Do not develop new farming projects in the following protected areas:

UNESCO World Heritage Sites

Wetlands on the Ramsar list

Alliance for Zero Extinction sites

IUCN Category I-IV areas

Peat lands

- Conduct a High Conservation Value (HCV) assessment or equivalent prior to developing new farming projects, especially on Key Biodiversity Areas, and commit to not adversely impact HCV areas in a manner that would result in the irremediable loss of one or more of the six High Conservation Values.*

Agrochemicals

- Do not use the following products, except in exceptional cases:
 - Substances that have been banned under the Stockholm Convention on Persistent Organic Pollutants (POP);
 - Substances listed in Annex III of the Rotterdam Convention;
 - Pesticides categorised as WHO Class 1A or 1B.
- Have a policy to minimise the use of pesticides and fertilisers (incl. Paraquat).

Physical agricultural products merchants and traders

BNP Paribas Asset Management will only provide financial products or services to physical agricultural products merchants and traders which:

Food Safety and traceability

- Have a policy on food safety and traceability covering their sourcing and their own operations

Evaluation criteria

BNP Paribas Asset Management will also carry out an analysis of the considered Agriculture companies. The following evaluation criteria will be considered as key areas of due diligence. We will therefore assess whether companies:

Criteria for all agriculture companies

General environmental management

- Have obtained or plan to obtain ISO 14001 certification, or equivalent certification, within a five year period;
- Put in place measures to monitor and reduce GHG emissions including CO₂ (carbon dioxide) and CH₄ (methane), energy consumption, waste generation and disposal, and to ensure soil integrity;*
- Publish externally audited annual environmental and social reports;*
- Have been regularly and repeatedly criticised for their environmental, social and governance performance on material issues, and whether actions have been taken to address them;
- Engage in sustainable initiatives as listed in Good industry practices section on page 31

Working conditions and human rights

- Have a policy in place covering maximum working hours;
- Provide workers training program on environmental risks and social issues.*

Health and Safety

- Have obtained or plan to obtain OHSAS 18001 certification or equivalent certification, within a five year period;
- Have a health and safety policy which includes measures to avoid and reduce hazards, in particular through the training of workers.

Global food security*

- Engage and cooperate with small-scale producers:
 - Provide training on improved growing techniques and on health and safety issues including agrochemicals use;
 - Agree on fair market practices, e.g. fair and transparent terms of trade, quality requirements, pricing structure and access to dispute resolution mechanisms.

- Minimise food wastage during harvesting, storages and transport.

Food Safety and traceability

- Have or plan to obtain ISO 22 000 certification (which is based on HACCP Principles), or equivalent food safety management certification, within a five-year period.

Additional criteria for Farming activities

In addition to the criteria applying to all agriculture companies, BNP Paribas will determine whether the farming companies:

Ecosystem and biodiversity*

- Integrate High Carbon Stock (HCS) analysis when developing new farming projects, and work with the relevant experts in that field.

Agrochemicals

- Implement an Integrated Pest Management plan for their farming operations;
- Do not use or plan to eliminate the use of pesticides included in the SIN List for their operations.

Global food security*

- Avoid and minimise the potential adverse impacts on local subsistence agriculture when developing a new farming project (by the introduction of new crops or the replacement of existing local crops, for biofuel production or any other type of non-subsistence farming activity).

Additional criteria for Livestock and poultry activities

In addition to the criteria applying to all agriculture companies, BNP Paribas will determine whether companies, for their livestock and poultry activities:

Animal Welfare

- Operate in line with the IFC's Good Practice Note on Improving Animal Welfare in Livestock Operations, in particular adopt good management practices on animal husbandry, housing systems, genetics and breed selection;
- Implement the "Business Benchmark on Farm Animal Welfare" recommended policies and management systems¹².

3.2.2.2 Criteria for seeds/grains producing companies

Food safety and security

- Can demonstrate the quality and safety of their seeds/grains;
- Provide transparent and comprehensive information on the seeds/grains usage and on the consequences of their use, especially for products in which gene technology is incorporated (GMOs).

Criteria for physical agricultural products merchants and traders

Supply Chain Governance and Traceability

- Set up policies to source or trade agricultural products from companies that do not contradict the mandatory requirements listed in section 3.2.1 of this policy.

Good industry practices

BNP Paribas also encourages agriculture companies to follow internationally recognised best practices on the key environmental, social and societal stakes of the agriculture sector. The Group encourages companies, depending on their activities:

- To adhere to the FAO Voluntary Guidelines on the responsible Governance of tenure;
- To follow the FAO-OECD Guidance for Responsible Agricultural Supply Chains;

- To comply with World Bank Group Environmental, Health and Safety Guidelines both general and specific to the Agribusiness and Food production sectors;
- To become an active member of Global G.A.P and comply with SAN Standards;
- To implement the IFC Good Practice Note on Improving Animal Welfare in Livestock Operations;
- To follow the CEO Water Mandate Corporate Water Disclosure Guidelines¹³;
- To comply with the CGF Responsible Soy Sourcing Guidelines.
- Agricultural commodities producers are encouraged to have their crop fields or plantations certified against the RTRS, BCI, Bonsucro or UTZ (as defined in section 8) principles and standards by 2020. In particular, cattle farmers are encouraged to have their production systems certified against the SCPS Standards (SAN) by 2020.
- Agricultural commodities primary processors and traders are encouraged to set up policies requiring that their suppliers become certified against the RTRS, BCI, Bonsucro, UTZ or SCPS principles and standards, by 2020.
- Forest managers and processors of timber products are encouraged to have their forest concessions certified against the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC) standard by 2020.

Moreover, BNP Paribas has committed itself to.....Zero Deforestation

GLOSSARY

The following definitions apply in this policy: **Agrochemical**

A chemical substance used in agricultural production systems to maintain soil fertility (compost or fertiliser), control weeds (herbicide), combat pests (insecticides, fungicides, nematocides, rodenticides, etc.) or stimulate growth.

Alliance for Zero Extinction sites (AZE)

The AZE is a joint initiative of worldwide biodiversity conservation organisations, which aims to prevent extinctions by identifying and safeguarding key sites, each one of which is the last remaining refuge of one or more Endangered (EN) or Critically Endangered (CR) species. AZE sites contain >95% of the known global population of a given EN or CR species, or >95% of the population for one life history segment (e.g. breeding or wintering) of the EN or CR species. It also has distinctive features and definable boundaries. For the above reasons, the loss of an AZE site would result in the extinction of a species in the wild.

<http://www.zeroextinction.org/index.html>

Biofuel

A type of energy derived from renewable plant and animal materials. Examples of biofuels include ethanol (often made from corn in the United States and sugarcane in Brazil), biodiesel (vegetable oils and liquid animal fats), green diesel (derived from algae and other plant sources) and biogas (methane derived from animal manure and other digested organic material).

Distributors

Distributors sell agricultural inputs (fertilisers, farm equipment...) to agriculture companies

Forest

Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use.

Source: FAO

<http://www.fao.org/docrep/014/am665e/am665e00.pdf>

Free, Prior and Informed Consent (FPIC)

Free, prior and informed consent (FPIC) refers to the rights of local communities, particularly indigenous peoples, to

HACCP (Hazard analysis and critical control points) Principles	<p>participate in decision making about issues impacting them. The principle of FPIC within international development is most clearly stated in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Article 10 states: “Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.”</p> <p>HACCP is a systematic preventive approach to food safety and biological, chemical, and physical hazards in production processes that can cause the finished product to be unsafe, and designs measurements to reduce these risks to a safe level.</p> <p>Principle 1 - Conduct a Hazard Analysis Principle 2 - Identify the Critical Control Points Principle 3 - Establish Critical Limits Principle 4- Monitor Critical Control Points Principle 5 - Establish Corrective Action Principle 6 – Verification Principle 7 - Recordkeeping</p> <p>The HACCP system can be used at all stages of a food chain, from food production and preparation processes including packaging, distribution, etc.</p>
IFC's Good Practice Note on Improving Animal Welfare in Livestock Operations	<p>This Note is part of the IFC's commitment to provide enhanced support to its clients in the development of a responsible and forward-looking approach to livestock operations to, among other things, help producers access and maintain entry into high quality and value market segments. It also provides guidance on a range of approaches to animal welfare. It covers traditional livestock production (dairy, beef, broiler chickens, layer chickens, pigs, and ducks) and aquaculture in intensive and extensive systems (although this policy does not apply to aquaculture).</p> <p>http://www.ifc.org/wps/wcm/connect/67013c8046c48b889c6cbd9916182e35/IFC+Good+Practice+Note+Animal+Welfare+2014.pdf?MOD=AJPERES (December 2014)</p>
Integrated Pest Management (IPM)	<p>A long-term prevention strategy to combat pests, involving a combination of techniques, such as biological control (use of beneficial insects or microbes), use of crop-resistant varieties and the use of alternative agricultural practices (spraying, fertilising or pruning). The objective of IPM is to make conditions less favorable for pest development. Pesticides are used only when the damage caused by pests is greater than the level that the farmer can economically sustain.</p>
IUCN (International Union for Conservation of Nature) I-IV	<p>IUCN protected area management categories classify protected areas according to their management objectives. The categories are recognised by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas and as such are increasingly being incorporated into government legislation.</p> <ul style="list-style-type: none">- Ia Strict Nature Reserve- Ib Wilderness Area- II National Park- III Natural Monument or Feature- IV Habitat/Species Management Area

Key Biodiversity Areas

KBAs incorporate information from the IUCN Red List of Threatened Species, BirdLife International's Important Bird Areas, Plantlife International's Important Plant Areas, IUCN's Important Sites for Freshwater Biodiversity, and sites identified by the Alliance for Zero Extinction. KBAs are identified at the national, sub-national or regional level by local stakeholders using the two globally standard criteria of vulnerability and irreplaceability, and therefore must contain:

- One or more globally threatened species;
- One or more endemic species which are globally restricted to the site or surrounding region;
- Significant concentrations of a species (e.g. important migratory stops, nesting sites, nurseries or breeding areas); and/or
- Globally significant examples of unique habitat types and species assemblages.

For more information:

<http://www.biodiversitya-z.org/content/key-biodiversity-areas-kba>

Land grabbing

Contentious issue of large-scale land acquisitions concerning the buying or leasing of large pieces of land in developing countries, by domestic and transnational companies, governments, and individuals.

Management Plan

A management plan summarises the commitment of a company or project to address and mitigate the identified risks and impacts of its operations (through avoidance, minimisation, and compensation/offset), as well as to monitor and improve its performance. Management plans are usually translated into operational procedures.

Origination operations

Supply chain services and commodity management between producers and suppliers

Originators usually provide producers with liquidity and physical asset base and storage capacity to improve commodity flow into key markets.

Paraquat

Paraquat is the trade name for one of the most widely used herbicides. It is quick-acting and non-selective, killing green plant tissue on contact. It is toxic to animals and human beings, and linked to development of Parkinson's disease. In the United States, paraquat is classified as "restricted use", which means that it can be used by licensed applicators only. In the European Union, paraquat has been forbidden since 2007.

Peat lands

A soil that contains at least 65% organic material, is at least 50 cm in depth, covers an area of at least 1 ha, and is acidic in nature (Driessen, 1978; Wösten & Ritzema, 2001).

Physical agricultural products merchants and traders

Link between producers and industries: agriculture commodity traders offer services to both sellers and buyers (which may be other traders/merchants), and may provide integrated logistics and distribution required for purchase and delivery of the right product at the right time, and managing the risks involved.

Polyculture

Agriculture using multiple crops in the same space, in imitation of the diversity of natural ecosystems, and avoiding large stands of single crops, or monoculture. It includes multi-cropping, intercropping, companion planting, beneficial weeds, and alley cropping.

Polyculture, though it often requires more labor, has several advantages over monoculture:

- The diversity of crops avoids the susceptibility of monocultures to disease.
- The greater variety of crops provides habitat for more species,

increasing local biodiversity. This is one example of reconciliation ecology, or accommodating biodiversity within human landscapes. It is also a function of a biological pest control program.

Rotterdam Convention

Multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals. The objectives are to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to the environmentally sound use of those hazardous chemicals. The chemicals listed in Annex III include pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons by two or more Parties and which the Conference of the Parties has decided to subject to the Prior Informed Consent (PIC) procedure. There are a total of 47 chemicals listed in Annex III, 33 are pesticides (including 4 severely hazardous pesticide formulations) and 14 industrial chemicals.
<http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx>

SIN List

The Substitute It Now (SIN) List has been developed by the International Chemical Secretariat (ChemSec). This list is a database of chemicals identified as Substances of Very High Concern based on the criteria established by the EU chemicals regulation REACH.

Soil salinisation

The full list can be found at <http://sinlist.chemsec.org>
Following irrigation, the water added to the soil is used by the crop or evaporates directly from the moist soil. The salt contained in this irrigation water is left behind in the soil and accumulates, leading to soil salinisation unless it is removed or dissolved. Soil salinisation can have dramatic consequences, through the reduction of soil fertility, and is considered as a major source of desertification worldwide.

Source:

http://www.fao.org/docrep/r4082e/r4082e08.htm#7.2.2soil_salinity

Stockholm Convention on Persistent Organic Pollutants

A global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

Exposure to Persistent Organic Pollutants (POPs) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.

<http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx>

Traceability

The ability to follow the movement of a food through specified stage(s) of production, processing and distribution. The traceability/product tracing tool should be able to identify at any specified stage of the food chain (from production to distribution) from where the food came (one step back) and to where the food went (one step forward), as appropriate to the objectives of the food inspection and certification system.

(Codex Alimentarius Commission, CAC 2006).

UNESCO World Heritage Sites

Designated cultural and natural heritage areas around the world that are considered of outstanding value to humanity and which are listed under the World Heritage Convention.

<http://whc.unesco.org/en/list>

Wetlands on the Ramsar List

These wetlands are defined as “Sites containing representative, rare or unique wetland types” or “Sites of international importance for conserving biological diversity” listed in the Convention on Wetlands adopted in Ramsar, Iran in 1971 (<http://www.ramsar.org/>).

WHO Class Ia or Ib

Correspond to the pesticides that pose the greatest risks to human health according to the World Health Organisation’s Recommended Classification of Pesticides. Hazard 1a being “extremely hazardous” and 1b being “highly hazardous”.

(http://www.who.int/ipcs/publications/pesticides_hazard/en/)

World bank Group’s Agribusiness and Food Production EHS Guidelines

Technical reference documents with general and industry-specific examples of good international industry practices. The Environmental, Health and Safety (EHS) Guidelines contain the performance levels and measures that are generally considered to be achievable at reasonable costs by existing technology.

http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our+approach/risk+management/ehsguidelines

Zero net deforestation

The BEI follows the CGF’s explanation of “zero net deforestation”, itself derived from WWF’s guidance:

- “Zero net deforestation” can be distinguished from “zero deforestation”, which means no deforestation anywhere.

- “Zero net deforestation” acknowledges that some forest loss could be offset by forest restoration. “Zero net deforestation” is not synonymous with a total prohibition on forest clearing.

Rather, it leaves room for change in the configuration of the land-use mosaic,

provided the net quantity, quality and carbon density of forests is conserved. In some circumstances, conversion of forests in one site may contribute to the conservation of the wider landscape (e.g. reducing livestock grazing pressure, or conversion of forest areas in the buffer zone to provide farmland). However, “zero net deforestation” is not achieved through the conversion of forests into fast growing plantations. Such conversion would count as deforestation against the target.

Approaches to implementing a “zero net deforestation” policy should include the protection of forests with a High Conservation Value (HCV)¹ or that are considered of High Conservation Significance (HCS)².

¹ Please see <http://www.hcvnetwork.org/> for a working definition

² Please see <http://www.greenpeace.org/international/global/international/Briefing-2013.pdf> for a working definition of HCS

COAL

From 1 January 2020, BNPP AM will implement a significantly tighter exclusion policy on companies engaged in (i) the mining of thermal coal and (ii) the generation of electricity from coal. The policy will apply to all of BNPP AM's actively managed open-ended funds and will become the default policy for mandates.

New policy on thermal-coal mining: From 1 January 2020 BNPP AM will exclude companies that derive more than 10% of their revenues from the mining of thermal coal and/or that are responsible for 1% or more of total global thermal-coal production. The global production limit will capture those companies whose share of revenue from coal is below 10%, but which nonetheless account for a meaningful level of production on an absolute basis.

New policy on the carbon intensity of electricity production: From 1 January 2020, BNPP AM will exclude all power generators with a carbon intensity above the 2017 global average of 491 gCO₂/kWh, with BNPP AM subsequently following the Paris-compliant trajectory for the sector as determined by the International Energy Agency ('IEA') Sustainable Development Scenario (SDS). The IEA's SDS requires power generators' carbon intensity to fall to 327 gCO₂/kWh by 2025, and BNPP AM will therefore demand that companies reduce their carbon intensity between 2020 and 2025 at a rate consistent with this, excluding those that fail to do so.

BNPP AM acknowledges the importance of encouraging companies to reduce their dependence on coal mining and coal-fired power generation in order to align their activities with the Paris Agreement. It will therefore consider exceptions for those miners and power generators that make **credible commitments** to reducing their coal-based activities to levels consistent with the Paris Agreement within the required time frame. The credibility of commitments will be determined using quantitative and qualitative criteria, including disposal plans for coal assets or acquisition plans for lower-carbon generation capacity, and the extent to which management are prioritising a lower-carbon business model. Specific guidelines will be established. Exemptions will be granted on a half-yearly basis, with those companies demonstrating their commitment to the policy expected to comply within two years. The **two-year timeframe** is designed to strike the right balance between giving those companies that appear committed to reducing their exposure to coal-based activities more time to comply with the policy, and having a clear and visible deadline that gives urgency to this commitment and hence credibility to the case for an exemption.

There are **three reasons** why we have decided to exclude coal from our portfolios and why we have decided to do so now.

1. **To tackle climate change**

The decision to exclude companies overly exposed to thermal coal is in line with, and a step towards achieving, the commitment we took in 2016 to progressively align our portfolios to the Paris Agreement Goal of keeping temperature rises well-below 2°C above pre-industrial levels. It is also central to our Global Sustainability Strategy where we commit to aligning our investments by 2025.

Keeping temperature rises well below 2°C requires a massive and rapid reduction of greenhouse-gas (GHG) emissions. The current use of coal worldwide is incompatible with this target. Indeed, coal combustion is the largest single source of global warming, while the power sector itself is the largest single source of coal combustion. Reducing emissions from coal is therefore the most effective way of moving towards an energy system consistent with the Paris Agreement. According to the IEA's SDS, almost all of the emissions reductions from the energy sector required by 2025 to align the global emissions pathway with the Paris Agreement – 2.8Gt out of a total 3Gt – come from cutting back on the use of coal in power generation.

2. **To reduce air pollution and improve human health**

The policy also responds to an increasing concern over **air pollution and the impact on human health**. According to the World Health Organisation, approximately 4.2 million people die every year from outdoor air pollution.²⁵ This is caused by:

- 3/4 of SO₂ emissions linked to power generation are due to coal combustion
- 70% of NO_x emissions linked to power generation are due to coal combustion
- 90% of PM 2.5 (particulate matter) linked to power generation are due to coal combustion

3. **To avoid stranded asset risk**

²⁵ See [WHO, Air Pollution](#), 2019.

Finally, the policy also responds to the need to manage the risk of fossil-fuel assets becoming stranded in a strong climate-change mitigation scenario. Owing to its high carbon content and the fact that 73% of coal consumption is in power generation – where increasingly cheaper alternatives exist – coal is at greater risk of being stranded in the near term **than oil and gas**.

- **Policy risk:** coal phase-outs have been announced in a number of EU countries (UK, Netherlands, France, Finland, Italy, and most recently Germany), and compensation policies will not necessarily cover all costs. Other jurisdictions are likely to go down this path over the next decade for both climate and public-health reasons (in total 24 countries or other jurisdictions have already committed to phasing out coal in power generation).²⁶ Carbon pricing is likely to be more widely adopted over the next decade as well.
- **Technology risk:** Renewables are becoming ever more competitive, and in certain jurisdictions wind and solar are not only already cheaper than *new* coal capacity but are also close to being cheaper than *existing* coal capacity. This will become a much more widespread feature of power markets across the world over the next decade as renewable costs continue to fall and carbon pricing becomes more widespread.
- **Virtuous feedback loop between policy and technology:** With strong support from public policy in the form of subsidies, huge amounts of capital have been deployed in renewables over the last decade, enabling economies of scale and hence more ambitious targets which then drive further cost economies of scale in renewables. This feedback loop could be replicated with the ramp-up of energy-storage technologies.
- **Commodity-price risk:** In some jurisdictions – most notably the US – cheap gas has already largely priced coal out of the market.
- **Carbon capture and storage:** Carbon-capture and storage technology has long been held out as the saviour of coal, but it has simply not attracted the investment necessary to drive economies of scale and has probably missed its window as a large-scale solution at global scale given the renewables revolution and the improving economics of energy storage.

CO₂ intensity: it relates to the ratio between carbon dioxide (CO₂) emissions of a power plant and the quantity of electricity generated by this same power plant, during a given timeframe (typically one year). This ratio is expressed in gCO₂/KWH, for example.

²⁶ See Greenpeace, [Global Shift](#), October 2017. This reports list 22 political jurisdictions (10 nation states, 7 US states, and a number of cities such as Beijing and New Delhi) that have committed to phasing out coal in power generation, and since then Italy and Germany have joined the list.

CONTROVERSIAL WEAPONS

Background

While BNP Paribas Asset Management recognises the right of countries to defend themselves and protect their national security, the Group acknowledges that the defence sector presents specific risks related to (1) the status of certain weapons, (2) their potential end use, and (3) the risk of corruption:

- (1) Controversial weapons: these weapons have indiscriminate effects and cause undue harm and injuries. Certain controversial weapons, namely cluster munitions, antipersonnel mines, chemical and biological weapons and nuclear weapons are regulated by international conventions.
- (2) Potential irresponsible use of non-controversial weapons: the potential for the irresponsible end-use of military, security or police equipment is an important issue in this sector. This is why some countries are subject to international monitoring and subject to international sanctions and specific embargoes on the weapons trade. As a major European financial institution, the Group recognises the validity of the position of the European Union Council, which states the five greatest challenges and threats to European Union security are terrorism, proliferation of weapons of mass destruction, regional conflicts, failed states and organised crime. Illicit weapons trade, in particular trade in small arms, figures at the centre of four of these five threats. Initiatives at different stages of implementation aim at preventing weapons from being supplied to repressive regimes and/or terrorist groups (embargoes, the EU Code of Conduct on Arms Exports and the Arms Trade Treaty). BNP Paribas Asset Management implements strengthened oversight measures to examine transactions involving the most sensitive countries. Until small arms trade has been addressed by an international treaty, the Group's oversight also includes transactions involving small arms.
- (3) Corruption risk: BNP Paribas Asset Management also recognises that international trade in weapons is particularly exposed to the risk of corruption and money laundering. Trade in non-controversial arms may finance dictatorial and/or corrupt regimes and terrorist groups. This is why, in keeping with its commitment to exemplary efforts to fight corruption and money laundering, the Group implements strengthened oversight and control measures. These measures are designed to ensure the traceability of payments, the transparency of commercial and banking intermediaries, knowledge of the destinations of goods and final buyers and the consistency of prices and commissions paid to commercial intermediaries.

Companies Concerned

BNP Paribas AM defines controversial weapons as weapons having indiscriminate effects and causing undue harm and injuries. Certain controversial weapons, namely cluster munitions, antipersonnel mines, chemical and biological weapons and nuclear weapons are regulated by international conventions.

“Controversial weapons” is a concept subject to change over time. At the date of publication of this Policy, BNP Paribas AM considers the following to be “controversial weapons”:

- Anti-personnel mines: the Ottawa Convention, which took effect in March 1999, bans the use of antipersonnel mines;
- Cluster weapons: the Convention on Cluster Munitions (Oslo Convention) adopted in 2008 prohibits the use, stockpiling, production and transfer of cluster munitions;
- Nuclear weapons: the Nuclear Non-proliferation Treaty (NPT) of 1968, which took effect in 1970, aims at inhibiting the proliferation of nuclear weapons²⁷;
- Biological and chemical weapons: the Biological and Toxin Weapons Convention (BTWC) of 1972 and the Chemical Weapons Convention (CWC) of 1993 outlaw biological and chemical weapons;
- Depleted uranium munitions: no current international convention exists, but BNP Paribas recognises the concerns of certain stakeholders concerning depleted uranium munitions.

²⁷ BNP Paribas AM makes an exception for government controlled nuclear weapon programs in NATO countries that are authorised to possess nuclear weapons under the Nuclear Non-Proliferation Treaty

If one of the above-mentioned activities takes place within a subsidiary, the direct parent company is also considered to be involved in controversial weapons if it holds a majority equity interest in the subsidiary. Likewise, any majority owned subsidiary of a company involved in controversial weapons is also deemed to be involved.

Furthermore, BNP Paribas AM will not invest in companies involved in the following types of equipment and activity:

- Companies that produce, sell or buy equipment on the EU list of goods which have no practical use other than for the purpose of “capital punishment, torture or other cruel, inhuman or degrading treatment or punishment”. EU Council Regulation No 1236/2005 imposes a prohibition on exports of such goods²⁸;
- Companies which have been identified by the UN, EU, United States or France, as having deliberately participated in the violation of embargos on arms and internal repression equipment imposed by these authorities.

Mandatory Requirements

BNP Paribas Asset Management does not wish to invest in companies involved in the manufacture, trade or storage of “controversial weapons”, or any other activity involving controversial weapons²⁹.

BNP Paribas Asset Management considers that a company is “involved in controversial weapons” when the company:

- Produces, trades, or stores controversial weapons or components that are specifically designed for these weapons (dedicated components) and which represent a critical component required for the functioning of the weapon (key component) and /or;
- Provides assistance, technologies or services dedicated to controversial weapons.

If one of the above-mentioned activities takes place within a subsidiary, the direct parent company is also considered to be involved in controversial weapons if it holds a majority equity interest in the subsidiary. Likewise, any majority-owned subsidiaries of a parent company involved in controversial weapons are also deemed to be involved.

Furthermore, BNP Paribas AM will not invest in companies involved in the following types of equipment and activity:

- Companies that produce, sell or buy equipment on the EU list of goods which have no practical use other than for the purpose of “*capital punishment, torture or other cruel, inhuman or degrading treatment or punishment*”. EU Council Regulation No 1236/2005 imposes a prohibition on exports of such goods³⁰;
- Companies which have been identified by the UN, EU, United States or France, as having deliberately participated in the violation of embargos on arms and internal repression equipment imposed by these authorities.

Key Definitions

Anti-personnel mine: A mine that is designed to be exploded by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons (definition from Ottawa Convention, 1997).

Arms Trade Treaty:

The United Nations Arms Trade Treaty (ATT) is a multilateral treaty that regulates the international trade in conventional weapons - from small arms to battle tanks, combat aircraft and warships - with the objective of preventing and eradicating the illicit trade in conventional arms and preventing their diversion. It was adopted by the UN General Assembly on April 2nd 2013 and entered into force on 24 December 2014.

Biological weapon: Are defined in line with the multilateral Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their destruction (1972):

²⁸ COMMISSION IMPLEMENTING REGULATION (EU) No 775/2014 of 16 July 2014 amending Council Regulation (EC) No 1236/2005 concerning trade in certain goods which could be used for capital punishment, torture or other cruel, inhuman or degrading treatment or punishment

²⁹ An exception is made for companies that only contribute to government controlled nuclear weapon programs in NATO countries that are authorised to possess nuclear weapons under the Nuclear Non-Proliferation Treaty.

³⁰ COMMISSION IMPLEMENTING REGULATION (EU) No 775/2014 of 16 July 2014 amending Council Regulation (EC) No 1236/2005 concerning trade in certain goods which could be used for capital punishment, torture or other cruel, inhuman or degrading treatment or punishment

- (a) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
- (b) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Chemical weapon: are defined in line with the multilateral Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (1993):

- (a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;
- (b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (a), which would be released as a result of the employment of such munitions and devices;
- (c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (b).

Cluster munitions: A conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions (definition from the Convention on Cluster Munitions, 2008).

Controversial weapons: Controversial weapon is a dynamic concept likely to change in time. As of the publication date of this policy, BNP Paribas Asset Management considers the following as “controversial weapons”:

- (a) Anti-personnel mines: the Ottawa Convention, effective since March 1999, bans the use of anti-personnel mines;
- (b) Cluster weapons: the convention on Cluster Munitions (Oslo Convention) adopted in 2008 prohibits the use, stockpiling, production and transfer of cluster munitions;
- (c) Nuclear weapons³¹: the Nuclear Non-proliferation Treaty (NPT) of 1968, effective since March 1970, aims at inhibiting the proliferation of nuclear weapons;
- (d) Biological and chemical weapons: the Biological and Toxin Weapons Convention (BWC) of 1972 and the Chemical Weapons Convention (CWC) of 1993 outlaw biological and chemical weapon;
- (e) Depleted uranium ammunitions: no current Convention exists, but BNP Paribas Asset Management acknowledges the society’s general concern over depleted uranium ammunition.

Depleted uranium ammunition: Ammunition containing depleted uranium.

Financial Action Task Force: The Financial Action Task Force (FATF) is an inter-governmental body whose purpose is the development and promotion of national and international policies to combat money laundering and terrorist financing.

Internal Repression: The EU Code of Conduct on Arms Exports defines “Internal Repression” as to “include inter alia, torture and other cruel, inhuman and degrading treatment or punishment, summary or arbitrary executions, disappearances, arbitrary detentions and other major violations of human rights and fundamental freedoms as set out in relevant international human rights instruments, including the Universal Declaration on Human Rights and the International Covenant on Civil and Political Rights.”

Internal Repression Equipment: Within the scope of this Policy “Internal Repression Equipment” should be understood as a specific subset of Security and Police Equipment which might be used for internal repression. The EU Code of Conduct on Arms Exports defines “Internal Repression Equipment” as: “equipment which might be used for internal repression [including], inter alia, equipment where there is evidence of the use of this or similar equipment for internal repression by the proposed end-user, or where there is reason to believe that the equipment will be diverted from its

³¹ An exception is made for companies that only contribute to government controlled nuclear weapon programs in NATO countries that are permitted to possess nuclear weapons under the Nuclear Non-Proliferation Treaty.

stated end-use or end-user and used for internal repression.” There is no definitive list of the types of equipment included in this category, but EU regulations implementing restrictive measures on certain countries sometimes specify a list of equipment covered by an embargo on Internal Repression Equipment³².

Military equipment: All equipment covered by EU Council Common Position 2008/944/CFSP defining common rules governing the control of exports of military technology and equipment as indicated on the most recent Common Military List of the European Union³³.

Nuclear weapon: A device that is capable of releasing nuclear energy in an uncontrolled manner and which has a group of characteristics that are appropriate for use for warlike purposes (definition from Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, 1967).

Risk of diversion: The transfers of defence and security equipment to unauthorised users, as well as transfers to authorised users that will use, or are at risk of using the equipment in abusive ways to commit serious violations of human rights. (also see Article 11 of the Arms Trade Treaty)

Security and Police equipment: Security and police equipment are the goods and services – including weapons, technology, or training - that enable security and police forces to function. This includes small arms and light weapons, ammunition, riot control equipment, police vehicles, surveillance equipment as well as training that security and police forces receive.

Small Arms and Light Weapons (SALW): Small arms include revolvers and self-loading pistols, rifles and carbines, assault rifles, sub-machine guns and light machine guns. Light weapons include heavy machine guns, hand-held under-barrel and mounted grenade launchers, portable anti-aircraft guns, portable anti-tank guns, recoilless rifles, portable launchers of anti-tank missile and rocket systems; portable launchers of anti-aircraft missile systems (MANPADS); and mortars of calibres of less than 100 mm. Also included are the following ammunitions and explosives: cartridges (rounds) for small arms, shells and missiles for light weapons, mobile containers with missiles or shells for single-action anti-aircraft and anti-tank systems, anti-personnel and anti-tank hand grenades, landmines, explosives³⁴.

Weapons: A weapon is generally defined as being a device for use in attack or defence in combat, fighting, or war. Equipment’s such as radars, binoculars, unarmed trucks are not considered as a weapon.

³² For example, see Annex I of COUNCIL REGULATION (EU) No 36/2012 of 18 January 2012 concerning restrictive measures in view of the situation in Syria; or Annex III of COUNCIL REGULATION (EU) No 588/2011 of 20 June 2011 concerning restrictive measures against President Lukashenko and certain officials of Belarus

³³ For the most recent Common Military List of the European Union at the time of publication of this document please see: <http://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=OJ:C:2015:129:FULL&from=EN>

³⁴ Based on <http://www.un.org/Depts/ddar/Firstcom/SGreport52/a52298.html>

ASBESTOS

a. Background

The term “asbestos” refers to a set of silicate minerals made up of microscopic fibres. Asbestos was long used in industrial and commercial applications because of its physicochemical properties, including resistance to fire, low thermal, acoustic and electrical conductivity, mechanical resistance, resistance to chemical attacks and elasticity.

The inhalation of asbestos fibres is dangerous and can cause serious illnesses, such as asbestosis and cancer, which can take up to 40 years to develop after the start of exposure.

Asbestos was used on a massive scale for more than 130 years. Asbestos consumption in France peaked between 1973 and 1975.

b. Companies Concerned

These *guidelines* apply to companies involved in asbestos as owner or operator of asbestos mines and asbestos fibre production facilities.

c. Mandatory Requirements

BNP Paribas Asset Management does not want to invest in companies that own or operate asbestos mines and asbestos fibre production facilities.

d. Key Definitions

The term “asbestos” refers to a set of silicate minerals made up of microscopic fibres, including:

1/ Loosely bound or unbound (friable) asbestos:

- Loose raw asbestos used as thermal insulation in the form of loose fill insulation or flocking (sprayed on), which can be found in some old steel-framed buildings
- Woven or braided asbestos for thermal insulation of pipes, personal protective equipment, electrical wiring, etc.
- Asbestos paper or board (from 5 to 50mm thick) used for thermal insulation of heaters, suspended ceilings, seals, fireproof partition walls, etc.
- Asbestos felt, mainly used for filters.

2/ Bonded asbestos:

- Asbestos powder added to gypsum plaster mortar, high-bond mortar, bonding agents, plaster patching compounds, etc.
- Asbestos mixed with cement (asbestos cement) used in a range of construction materials: corrugated sheets, outside wall sheeting, ventilation ducts, pipes, etc., particularly found in older prefabricated buildings.
- Mineral filler in paints, varnishes, sealants, insulating foam, etc.
- Asbestos added to plastics for seals, coatings, household utensils, brake linings, clutch facings, etc.
- Asbestos added to asphalt for roof waterproofing, anti-corrosion coatings, road surfacing, etc.

More than 50 countries have already banned asbestos, in particular:

1/ Europe:

- The 27 members of the European Union, as well as Iceland, Norway, Switzerland and Turkey;
- Croatia decided to ban asbestos in 2006, but the decision was overturned. Since the country is a candidate to join the European Union, however, it is expected to make the sensible choice to ban asbestos shortly.

2/ North, South and Central America:

- Argentina, Chile, Honduras, Uruguay;
- The situation in the United States is a legally complex one: asbestos is largely banned in the US, but there is no complete ban. On October 4, 2007, the US Senate unanimously voted to pass an act banning the import and use of asbestos. The 1989 ban issued by the United States Environmental Protection Agency (EPA), however, was partly overturned by a court of appeals;
- Prohibitory orders are in force in several states of Brazil, including São Paulo, Rio de Janeiro, Rio Grande do Sul and Pernambuco (N.B. These four states are home to 40% of Brazil's population);
- In a joint declaration signed on June 9, 2010 [see document (in Spanish)], the health ministers of Argentina, Bolivia, Brazil, Chile, Ecuador, Paraguay, Peru, Uruguay and Venezuela underlined the hazards of asbestos and made a commitment to ban asbestos (for those states yet to ban it).

3/ Asia:

- Saudi Arabia, Bahrain, Brunei, South Korea, Israel, Japan, Jordan, Kuwait, Mongolia, Oman, Qatar, Turkey;
- Some countries such as Singapore and Taiwan have issued stringent restrictions which have stopped the use of asbestos;
- The National Health Assembly in Thailand (N.B. Thailand is one of the biggest consumers of asbestos) voted a resolution banning asbestos on December 16, 2010. The ban has not yet come into effect.

4/ Africa:

- South Africa, Algeria, Gabon, Egypt, Mozambique and Seychelles.

5/ Oceania:

- Australia and New Caledonia;
- New Zealand banned the import of raw asbestos, but in theory the import of products containing asbestos is still legal.

MINING

a. Background

The mining sector provides mineral resources which are essential inputs to most sectors of the economy. World population growth, combined with the expectations of developing countries populations for higher levels of infrastructures, services and goods comparable to those enjoyed by the populations of most developed countries, are two factors that contribute to increase the world demand for mineral resources, while available mineral reserves get progressively scarcer and more difficult to access.

The mining sector also represents a significant share of national revenue in a wide range of countries and the responsible development of the mining industry is absolutely crucial in these countries in terms of revenue generation, employment, infrastructure development and support to production.

These considerations should however be balanced against the specific environmental, social, and governance risks associated to the mining industry. These cover water use and quality (especially in areas subject to water scarcity), waste generation, local air pollution and greenhouse gases emissions, land use and impacts on biodiversity, human rights impacts (land reclamation, working conditions, local communities' health and safety, population influx, physical or economic resettlement, impacts on indigenous people's livelihood and cultural identity), as well as governance (revenue transparency, environmental and social policies) and benefit sharing issues (such as local job creation and contribution to local economic and social development).

b. Companies Concerned

These *guidelines* apply to companies, groups or joint-ventures owning mining assets (which represent a significant share of their total assets) and which are involved in exploration, development or operation of such mining assets.

c. Mandatory Requirements

BNP Paribas Asset Management does not want to invest in companies that:

- Have their headquarters located in countries under financial sanctions from France, the European Union or the USA, or the United Nations;
- Use child or forced labour as defined in the International Labour Organisation (ILO) Conventions³⁵;
- Cannot provide a track record regarding health and safety at company level;
- Are involved in asbestos extraction;
- Cannot disclose or provide on demand information at company level on their performance related to water use, waste and GHG emissions as well as strategies regarding land reclamation;
- That use Mountain Top Removal (MTR) techniques.

d. Key Definitions

Carbon and Water Disclosure Projects. The Carbon Disclosure Project (CDP) is an independent not-for-profit organisation working to drive greenhouse gas emissions reduction and sustainable water use by business and cities. The CDP works with companies to establish methodologies and encourage disclosure and management of climate and water data (e.g. greenhouse gas emissions, water use and pollution). It also works with investors to assess risks and opportunities related to climate change and water scarcity, flooding, and pollution.

Extractive Industries Transparency Initiative (EITI): <http://eiti.org/> The EITI is a global standard ensuring transparency of payments from natural resources companies. It is a coalition of governments, companies, civil society groups, investors, and international organisations.

Forced labour: Work or service exacted from a person under threat or penalty, which includes penal sanctions and the loss of rights and privileges, where the person has not offered him/herself voluntarily (Forced Labour Convention n°29, ILO 2001a).

High Conservation Value (HCV) areas: High Conservation Value areas are critical areas in a landscape which need to be appropriately managed in order to maintain or enhance High Conservation Values. There are six main types of HCV areas:

- Areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).

³⁵ C138 Minimum Age Convention, 1973; C182 Worst Forms of Child Labour Convention, 1999; C29 Forced Labour Convention, 1930

- Globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
- Areas that are in or contain rare, threatened or endangered ecosystems;
- Areas that provide basic ecosystem services in critical situations (e.g. watershed protection, erosion control);
- Areas fundamental to meeting basic needs of local communities (e.g. subsistence, health);
- Areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

OIL SANDS

a. Background

Oil sands are a type of unconventional petroleum resource (bitumen) that are deposited within a mixture of sand and clay, either close to the surface or buried deeper underground.

Canadian oil sands resources alone are estimated to be in excess of 2 trillion barrels, as much as the remaining technically recoverable conventional oil in the entire world³⁶. Resources that are currently economically and technically recoverable are estimated at 170 billion barrels, which places Canada as the second largest country in the world in terms of recoverable oil reserves, behind Saudi Arabia. Other significant reserves can also be found in countries such as Venezuela, Russia and various countries in the Middle East. The magnitude of these reserves, combined with growing global energy and transportation fuel needs, will result in a foreseeable use of such resource³⁷.

Despite significant efforts to limit its impacts and to improve mitigation measures, oil sands development may take place in areas of ecological significance (such as peatlands) and could have adverse effects on natural landscapes, the fragmentation of habitats and, for certain oil sands projects, the creation of large tailings ponds. It is also a water-intensive industry that cumulatively may have adverse effects on water availability and quality. The presence of aboriginal communities in the oil sands development region is a key social issue to be taken into consideration.

Similarly to other fossil fuels, the majority of the greenhouse gases (GHG) associated with oil sands' life cycle is emitted at combustion stage (in vehicles). However, oil sands differ from conventional crudes in its high energy-intensive bitumen production process. Furthermore, on a global scale the development of a large amount of previously untapped fossil fuel resources may prove to be challenging in the context of international efforts to limit climate change. Key Environmental and Social Issues associated with the oil sands industry are further detailed in the Annex. Oil sands development also provides economic and social benefits which include revenue generation, employment and energy security. The decision to develop and expand the oil sands industry ultimately belongs to the relevant governments and regulators.

In light of the above, BNP Paribas Asset Management considers that it is essential that any company developing oil sands projects meets key stringent environmental and social requirements (if necessary going beyond compliance with the applicable host country laws and regulations, dependent on the scope and effectiveness of local regulation). BNP Paribas Asset Management also strongly encourages oil sands companies to develop and implement the best available technologies and practices in order to reduce their social and environmental footprint.

BNP Paribas Asset Management may invest in companies willing to develop oil sands reserves in a balanced and responsible manner, and has therefore defined the present sector policy to select companies that take into account the above-mentioned considerations

b. Companies Concerned

Oil sands projects: development and production activities, including surface mining and in situ recovery as well as integrated bitumen upgrading. Other oil & gas projects linked but not specific to the oil sands industry such as stand-alone upgrading, refining and transport of synthetic crude oil are not included in this scope.

Oil sands companies: companies or entities operating (or expected to operate) themselves or via a majority-owned subsidiary at least one oil sands project³⁸ and that are considered either as Producing Oil Sands Companies and/or either as Non-Producing Oil Sands Companies where:

- **Producing Oil sands companies**, are defined as oil sands companies for which: i) oil sands production³⁹ (i.e. bitumen or synthetic crude oil) represents at least 20% of their total daily production⁴⁰; or ii) oil sands production exceeds 100 kbbls/day in the last calendar year;
- **Non-Producing Oil sands companies** are defined as oil sands companies for which oil sands reserves represent more than 10% of their total reserves⁴¹.

³⁶ International Energy Agency, World Energy Outlook 2010, p.146.

³⁷ "Unconventional oil is set to play an increasingly important role in world oil supply through to 2035, regardless of what governments do to curb demand." International Energy Agency, World Energy Outlook 2010, p.49.

³⁸ As defined by the Government of Alberta, in Alberta Oil Sands Industry : Quaterly update. <http://www.albertacanada.com/about-alberta/oil-sands-quarterly.html>

³⁹ Gross production before royalties.

⁴⁰ Company's worldwide gross production in barrels of oil equivalent.

⁴¹ Proven and probable reserves (in barrels of oil equivalent)

c. Mandatory Requirements

BNP Paribas Asset Management will ensure that it only provides financial products and services to oil sands companies that meet sufficient technical, social and environmental standards in respect of their oil sands operations.

The definition of “sufficient technical, social and environmental standards” is dynamic and likely to change over time. As of the publication date of this policy, BNP Paribas Asset Management considers that those cover at least the following mandatory requirements:

- The company is not involved in severe controversies and incidents related to violations of any UN Global Compact Principles relative to its oil sands operations.
- The company has in place environmental and social policies that set forth their standards and/or targets in each of the Key Environmental and Social Issues.
- The company must be involved in research or multi-stakeholders efforts (such as COSIA13) to monitor and address the Key Environmental and Social Issues (such as development of full understanding of groundwater hydrology in the oil sands region, tailings ponds management and land reclamation).
- For Producing Oil sands companies, the company discloses or can provide on demand to BNP Paribas:
 - Safety track records (fatalities, total recordable injuries frequency)
 - Environmental performance data of its existing oil sands projects. This data must distinguish between oil sands in situ recovery and surface mining projects, and must cover at least the following:
 - Water usage (fresh water intensity, share of brackish water, share of recycled water)
 - GHG emissions (GHG intensity, Specified Gas Emitters Regulation compliance data and, for in situ projects, Cumulative Steam-oil Ratio)
 - Air emissions (NO_x, SO₂ and VOCs intensities)
 - Tailings ponds for oil sands mining projects (surface area of tailings ponds, annual rate of fines captured in dedicated disposal areas)
 - Land use (possibly using the following breakdown: cleared, disturbed, temporary reclaimed, permanently reclaimed, certified, and, for oil sands mining projects planned and actually reclaimed surfaces).
 - The company has in place a formal public engagement and aboriginal consultation process
 - The company has in place a grievance mechanism through which stakeholders' concerns can be raised and addressed.
 - The company commits not to adversely impact UNESCO World Heritage Sites, federally and provincially protected areas (parks and reserves), and Wetlands of International Importance on the Ramsar List.
 - The company has in place a policy to carry out High Conservation Value assessments or equivalent prior to developing new projects, and commits not to convert HCV habitats into industrial oil sands operations in a manner that would result in the irremediable loss of one or more conservation values.

d. Key Definitions

Aboriginal peoples: First Nations and Métis – along with Inuit – are Aboriginal peoples recognised by the Canadian Constitution. These peoples are descendants of the original inhabitants of North America and have unique heritages, languages, cultural practices and spiritual beliefs. First Nations are Indian peoples originating from Canada, whereas Métis are people of mixed First Nation and European ancestry. A large part of these communities lives in reserves or settlements.

Brackish water: Non-potable salty water from deep aquifers, unsuitable for consumption or agricultural use.

CCS Ready: Carbon Capture and Storage (CCS) is a process consisting of the separation of CO₂, transport to a storage location, and long-term isolation from the atmosphere. A CO₂ capture ready power plant is a plant which can include CO₂ capture when the necessary regulatory or economic drivers are in place. A CCS ready facility implies the following measures:

- _ A specific study has been carried out to ensure that the facility is technically capable of being fully retrofitted for CO₂ capture;
- _ It is technically and physically possible to connect retrofitted capture equipment to the existing facility;
- _ There are realistic pipeline or other routes to storage of CO₂;
- _ One or more potential storage areas have been appropriately assessed (safe geological storage of full lifetime volumes and rates of captured CO₂) or potential industrial use for CO₂ captured;
- _ Other known factors (including any additional water requirements) that could prevent installation and operation of CO₂ capture, transport and storage have to be identified and credible ways in which they could be overcome have to be assessed;
- _ Costs of retrofitting capture, transport and storage have been estimated;
- _ There has been public engagement and consideration of health, safety and environmental issues;
- _ “CCS Ready” status is reviewed and reported on periodically.

Cogeneration: Cogeneration is the simultaneous production of steam and electricity from a single source (e.g. natural-gas fired boilers). The electricity produced is used for the facility's requirement and excess production is sold back into the electricity grid. This process enhances energy efficiency and reduces region-wide GHG emissions.

Consultation process: The public engagement and aboriginal consultation process must include at least the following:

- _ Identification of the aboriginal communities potentially impacted by the project and of their legitimate representative bodies and organisations; this identification may be pursued in collaboration with local authorities;
- _ Evaluation of the nature and degree of project's potential impacts on the traditional ecological knowledge and traditional use of land of these communities;
- _ Information provided to these communities on the project and on its potential adverse impacts on them; this information is provided in a plain language and within a reasonable timeframe before the start of construction;
- _ Agreement on the organisation, extent and objectives of the consultation process with the legitimate representative bodies and organisations of these peoples;
- _ Consultation of these peoples' representative bodies and organisations on the mitigation and compensation strategies for the potential adverse impacts on them contemplated by the project.

Cumulative Steam-oil Ratio (CSOR): The amount of steam required per barrel of bitumen produced on average from start of the project up to the calculation date. This metric includes the steam used before the production's start.

Directive 074: The Energy Resources Conservation Board (ERCB) of Alberta issued on February 2009 a directive on *Tailings Performance Criteria and Requirements for Oil Sands Mining Schemes*, also called *Directive 074*. The purpose of this directive is to regulate the reclamation of tailings waste. It requires oil sands mining companies to submit tailings management plans and to divert a minimum portion of fine tailings to dedicated disposal areas.

GHG: Greenhouse Gases

High Conservation Value habitats:

The six High Conservation Values (HCVs) below, which include social values as well as ecological values, cover the range of conservation priorities shared by a wide range of stakeholder groups, and therefore need to be protected. A High Conservation Value area is simply the area (e.g. a forest, grassland, watershed, or landscape-level ecosystem) where these values are found, or, more precisely, the area that needs to be appropriately managed in order to maintain or enhance the identified values:

- _ HCV1. Areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia)
- _ HCV2. Globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- _ HCV3. Areas that are in or contain rare, threatened or endangered ecosystems
- _ HCV4. Areas that provide basic ecosystem services in critical situations (e.g. watershed protection, erosion control)
- _ HCV5. Areas fundamental to meeting basic needs of local communities (e.g. subsistence, health)
- _ HCV6. Areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

IFC : International Finance Corporation.

Mine Financial Security Program: The MFSP allows the province of Alberta to maintain for each project enough financial security to protect the people of Alberta from the costs associated with the liability of oil sands mining project development in the event a company cannot meet its obligations, for future suspension, abandonment, remediation and surface reclamation work.

Financial security is distributed among several deposits: the Base Security Deposit with a fixed amount of securities for each project, and three other deposits (Operating Life Deposit, Asset Safety Factor Deposit and Outstanding Reclamation Deposit) for which the amount depends on several indicators.

Peatlands : Wetland in which substantial peat accumulation – at least one foot (30 cm) – has taken place. The peatland substrate is an organic structure built by biological activity.

Peatlands are valuable for the various and crucial ecosystem services they provide.

These functions and values include biodiversity maintenance, carbon and water storage, solute detention and water regulation and quality.

- Firstly, undrained peatlands are unique natural resources forming distinct ecosystems of great biodiversity importance for the maintenance of genetic, species and habitat levels;
- Peatlands are also water catchments. They modify water quality and quantity, act as sinks for some substances, produce others, and influence the temporal pattern of water supply to rivers and lakes. The role of peatlands in water regulation depends on maintaining the integrity of their unique hydrology that is independent of but linked to that of adjacent wetlands and the wider landscape;

- Finally, peatlands have been major global carbon stores for millennia.

Peatlands also emit CO₂ and CH₄, the amounts being influenced by temperature and water level, both of which are likely to be affected by removal of vegetation, drainage and future climate change. Industrial activities on drained peatlands lead to substantial emissions of carbon dioxide and nitrous oxide (N₂O).

Ramsar sites: “Sites containing representative, rare or unique wetland types” and “Sites of international importance for conserving biological diversity” listed in the Convention on Wetlands adopted in Ramsar, Iran in 1971 (Ramsar convention).

Reclamation: The Reclamation process of an oil sands mining project consists of a series of sequential reclamation activities, which are conducted at different times on different parts of the land, once the land is considered ready-to-reclaim. This process is described in the project’s Mine Reclamation Plan. This plan is required and approved by the province of Alberta, and is updated every three years; it details on a yearly basis and over a ten-year period the surface areas that are to be reclaimed.

Specified Gas Emitters Regulation: This regulation, adopted by the Canadian province of Alberta in 2007, requires all existing facilities in Alberta emitting more over 100,000 tons of CO₂ equivalents per year to reduce their annual emissions intensity (total annual emissions per unit of production) by 12 per cent from their baseline emissions intensity. This obligation can be achieved by performance improvements or other compliance options (emission performance credits, offset credits or purchase of fund credits – i.e. payment of \$15 per tonne of CO₂ equivalent to the *Climate Change and Emissions Management Fund*).

VOCs: Volatile Organic Compounds

TOBACCO

Background

Some 180 countries have signed the World Health Organisation's Framework Convention on Tobacco Control, which aims to cut consumption by 30% by 2025 through new regulations and tax increases that will make tobacco less affordable. In September 2017, the UN Global Compact – a cornerstone of our responsible investment policy – officially announced its decision to exclude producers and/or manufacturers of tobacco. Worth noting is that this decision was made in direct support of the UN's Sustainable Development Goal number 3 – 'Ensure healthy lives and promote well-being for all at all ages'. Given our accountability as an asset manager for financing companies having a severe public health impact, BNP Paribas Asset Management decided in late 2017 to exit the tobacco sector. Tobacco was already excluded from all our SRI funds but we consider that it is now crucial to divest from tobacco manufacturers in all our mainstream investments. This decision is aligned with BNP Paribas Group's recent announcement that it is to cease financing and investment activities related to tobacco companies.

Tobacco differs from other areas of public concern, such as alcohol or junk food, in a number of ways:

- Public health:
 - Seven million people a year die from tobacco-related causes
 - 890 000 non-smokers – 28% of whom are children – die from the effects of passive smoking
 - If no action is taken to reduce smoking, one billion people in the world may die from related health problems during the 21st century.
 - Human rights abuse:
 - Children account for up to 60% of the workforce producing tobacco in 15 countries
 - Controversies on the supply chain, where there are many instances of a lack of safety training, and even a lack of basic equipment to protect farmers and young children from exposure to nicotine and toxic pesticides that can cause various diseases.
 - Poor housing conditions that often violate internationally recognised standards.
 - Substantial economic cost:
 - EUR 2.1 trillion a year worldwide, which is equivalent to the combined cost of war against terrorism.
- This is a non-financial decision and, as such, implementation will be phased to provide our clients both with the scope to seek alternative investment arrangements and to minimise the costs of implementation. There are, we believe, longer-term benefits for our business associated with our decision:
- It reduces the reputational risks associated with controversial holdings
 - It demonstrates that BNPP AM is actively supporting a more responsible economy

a. Companies Concerned

Tobacco companies: We are excluding tobacco manufacturing companies.

b. Mandatory Requirements

BNPP AM will exclude tobacco from our range of actively-managed investment funds. This extends the policy that has been applied to sustainable portfolios since we launched our first SRI fund in 2002.

The decision has been taken as part of BNPP AM's commitment to responsible investment, incorporating a fiduciary responsibility that encompasses managing environmental, social and governance (ESG) risks. Implementation will be phased in gradually, providing clients with time to seek alternative investment arrangements, should they deem it appropriate. Divestment from portfolios over which BNPP AM has full discretion is expected to be complete by the end of 2018.

With seven million people dying annually from tobacco-related causes [1], the decision takes into account concerns about public health, as well as human rights abuses and the substantial economic cost associated with tobacco, believed to be more than EUR 2 trillion a year globally, according to World Health Organisation estimates. Some 180 countries have signed the World Health Organisation's Framework Convention on Tobacco

Control, which aims to cut consumption by 30% by 2025 through. New regulations and tax increases that will make tobacco less affordable. In November 2017, the BNP Paribas Group announced its decision to cease financing and investment activities related to tobacco companies.

“BNPP AM is one of the first global asset managers to exclude tobacco from its mainstream investments”, says Frédéric Janbon. “As a leading player we are committed to being a responsible investor in all aspects of our business. We recognise the important role that long-term capital plays in tackling major global issues and with an increasing number of asset owners, insurers and pension funds excluding tobacco from their investments, we are taking into account growing international concerns about the risks posed by tobacco. Our commitment to long term investing remains resolute and we will continue to represent the interests of our clients to the management teams of the companies in which we invest, to engage with them on the issues relevant to our investment cases and to uphold our active commitment to a more responsible economy.”

DISCLAIMER

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