# INITIAL ENVIRONMENTAL EXAMINATION

## PROJECT/ACTIVITY DATA

<table>
<thead>
<tr>
<th>Project/Activity Name:</th>
<th>AlphaMundi GDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendment (Y/N):</td>
<td>N</td>
</tr>
<tr>
<td>Geographic Location(s) (Country/Region):</td>
<td>Africa and Latin America</td>
</tr>
<tr>
<td>Implementation Start/End:</td>
<td>TBD</td>
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<tr>
<td>Solicitation/Contract/Award Number:</td>
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</tr>
<tr>
<td>Implementing Partner(s):</td>
<td>AlphaMundi Foundation</td>
</tr>
<tr>
<td>Tracking ID/link:</td>
<td>E3-18-04</td>
</tr>
<tr>
<td>Tracking ID/link of Related RCE/IEE (if any):</td>
<td></td>
</tr>
<tr>
<td>Tracking ID/link of Other, Related Analyses:</td>
<td></td>
</tr>
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</table>

## ORGANIZATIONAL/ADMINISTRATIVE DATA

<table>
<thead>
<tr>
<th>Implementing Operating Unit(s): (e.g. Mission or Bureau or Office)</th>
<th>E3/Energy Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Operating Unit(s): (e.g. Mission or Bureau or Office)</td>
<td>E3/Energy Division</td>
</tr>
<tr>
<td>Funding Account(s):</td>
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</tr>
<tr>
<td>Funding Amount:</td>
<td>$3,000,000</td>
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<td>Amendment Funding Amount:</td>
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<td>Other Affected Unit(s):</td>
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</tr>
<tr>
<td>Lead BEO Bureau:</td>
<td>E3</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Augusta Abrahamse</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td></td>
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## ENVIRONMENTAL COMPLIANCE REVIEW DATA

<table>
<thead>
<tr>
<th>Analysis Type:</th>
<th>Categorical Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X Initial Environmental Examination</td>
</tr>
<tr>
<td></td>
<td>Amendment</td>
</tr>
<tr>
<td></td>
<td>Deferral</td>
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</table>

<table>
<thead>
<tr>
<th>Environmental Determination(s):</th>
<th>Negative Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive Determination</td>
</tr>
</tbody>
</table>

| Initial Environmental Examination Expiration Date: | |
| Additional Analyses/Reporting Required: | |
| Climate Risks Identified (#): | Low 6 Moderate High |
| Climate Risks Addressed (#): | Low 6 Moderate High |
THRESHOLD DECISION MEMO AND SUMMARY OF FINDINGS

PURPOSE AND SCOPE OF THE INITIAL ENVIRONMENTAL EXAMINATION

The purpose of this document, in accordance with 22CFR216, is to provide the first review of the reasonably foreseeable effects on the environment, and recommended Threshold Decisions, for the Powering Agriculture GDA with the AlphaMundi Organization. As per the guidance in ADS 204.3.9, the focus of this analysis is on the activities to be implemented by the AlphaMundi Foundation through a grant of USAID funds, however since the goal of the grant funding is to catalyze follow-on investment on the part of the AlphaMundi Group (investment funds), the environmental policies of the Group have also been examined.

PROJECT/ACTIVITY SUMMARY

USAID and the The AlphaMundi Organization (comprised of an investment group and a foundation) are forming a Global Development Alliance in order to catalyze financing for businesses providing clean energy solutions for increasing agriculture productivity and/or value in developing countries. This GDA is an initiative of Powering Agriculture: an Energy Grand Challenge for Development, for which an IEE was completed. However since this GDA represents a new approach, it is deemed appropriate to conduct a separate IEE.

Under this GDA, USAID will provide funding to the AlphaMundi Foundation to support technical assistance and improved impact measurement for companies operating in the energy-ag nexus, while the AlphaMundi Group will contribute in-kind resources in the form of technical expertise, provide direct investments to select energy-ag businesses and catalyze additional follow-on investment. It is anticipated that the companies targeted for support will typically provide small-scale renewable energy based solutions at the household or community level. In order to be selected, they must demonstrate the potential for positive benefits in terms of social welfare and environmental sustainability.

Should additional funding become available in the future, the focus sectors for this GDA may be expanded (for instance to water-ag businesses or ag-only businesses), however the type of support to be provided will remain the same.

ENVIRONMENTAL DETERMINATIONS

Although the majority of the activities to be funded by USAID under this GDA could qualify as categorical exclusions, because there is the potential the products, services and operations of the companies supported through this program may result in adverse environmental and social impacts, a Negative Determination with Conditions is recommended. This requires that AlphaMundi takes actions to avoid, minimize and then, as a last resort, mitigate through restoration, rehabilitation or compensation, using their own policies and procedures. Because this is a GDA agreement with AlphaMundi, it is important to advocate for and respect the organization's capacity to assess, avoid and mitigate for adverse environmental and social impacts. USAID has reviewed AlphaMundi's environmental and social policies and procedures and finds that they meet the substantive requirements of 22 CFR 216. The condition for AlphaMundi to fully adhere to and monitor the

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1 Guidance in ADS 204.3.9 reads: "To the extent that an alliance involves programs and activities that are not funded by USAID, 22 CFR 216 would not apply to activities financed separately by alliance partners utilizing their own funding mechanisms."
implementation of their environmental and social policies and procedures is specifically tailored to seek the environmental and social sustainability of companies in which they invest.

Upon approval of this document, the determinations become affirmed, per Agency regulations (22CFR216).

**CLIMATE RISK MANAGEMENT**
The AlphaMundi Foundation will consider climate risks when analyzing prospective companies and deciding which to support with technical assistance. Additionally, technical assistance provided by the AlphaMundi Foundation will help companies take climate risks into account as appropriate.

**BEO SPECIFIED CONDITIONS OF APPROVAL**
AlphaMundi, as an agent seeking to advance a company's ability to implement its activities, may indirectly cause adverse impacts to the environment. As a result, AlphaMundi must take actions to ensure that its investments (companies) are prepared to and do implement measures to assess environmental impacts and to avoid, minimize and then, as a last resort, mitigate through restoration, rehabilitation or compensation, using their own policies and procedures. This entails:

- Follow the environmental policy shared with USAID (see attached) for investment in any companies that have received support under this GDA
- Ensure that any companies that receive R&D support detailed above, also meet the conditions for investment funding as specified in AlphaMundi's environmental policy
- For companies that receive technical assistance under this GDA, but are not yet investment ready, AlphaMundi should provide support to help them become compliant AlphaMundi's environmental policy (necessarily, no investment funds will be deployed in the case that a company remains non-compliant)

**IMPLEMENTATION**
In accordance with 22CFR216 and Agency policy, the conditions and requirements of this document become mandatory upon approval. This includes the relevant limitations, conditions and requirements in this document as stated in Sections 3, 4, and 5 of the IEE and any BEO Specified Conditions of Approval.
USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION
PROJECT/ACTIVITY NAME: AlphaMundi GDA

Approval: Patricia E. Sdlwanen Acting for J. Haeni 10/31/2017
Jeff Haeni, Energy and Infrastructure Office Director

Clearance: Augusta Abrahamse, A/COR [required] 10/30/2017
Augusta Abrahamse, A/COR [required]

Clearance: Rebecca Nicodermus, Climate Integration Lead 10/30/2017
Rebecca Nicodermus, Climate Integration Lead

Concurrence: Teresa Bernhard, ES Bureau Environmental Officer [required] 11/19/17
Teresa Bernhard, ES Bureau Environmental Officer [required]

DISTRIBUTION: [Distribution lists may be customized by Bureau or Mission. Please follow Bureau- or Mission-specific guidance.]
1.0 PROJECT/ACTIVITY DESCRIPTION

1.1 PURPOSE AND SCOPE OF IEE
The purpose of this document, in accordance with Title 22, Code of Federal Regulations, Part 216 (22CFR216), is to provide a preliminary review of the reasonably foreseeable effects on the environment of the USAID GDA with the AlphaMundi Group and grant funding to be provided to the AlphaMundi Foundation, described herein, and recommend determinations and, as appropriate, conditions, for these activities. Upon approval, these determinations become affirmed, per 22CFR216 and specified conditions become mandatory obligations of implementation. This IEE also documents the results of the project/activity level Climate Risk Management process in accordance with USAID policy (specifically, ADS 201mal).

The GDA with the AlphaMundi Group and associated award to the AlphaMundi Foundation is an activity of Powering Agriculture: An Energy Grand Challenge (PAEGC). Because that this effort is sufficiently different from the activities described in the Powering Agriculture IEE, a separate IEE was deemed necessary.

This IEE is a critical element of USAID's mandatory environmental review and compliance process meant to achieve environmentally sound activity design and implementation. Potential environmental impacts should be addressed through formal environmental mitigation and monitoring plans (EMMPs) and/or Environmental Assessments (EAs), if needed.

1.2 PROJECT/ACTIVITY OVERVIEW
USAID and the AlphaMundi Organization (comprised of an investment group and a foundation) are forming a Global Development Alliance in order to catalyze financing for businesses providing clean energy solutions for increasing agriculture productivity and/or value in developing countries. While there are promising enterprises attempting to commercialise solutions in this space, a key barrier they experience is access to the financing needed to scale up their operations. At the same time, while investors might find such opportunities interesting, many of these companies may need assistance to further prove their business case and/or become investment-ready.

The Financing for Energy in Agriculture GDA (FEA) builds on the experience of AlphaMundi and USAID to overcome these barriers and unlock financing in the energy-ag nexus. Through Powering Agriculture: An Energy Grand Challenge for Development (PAEGC), USAID has already been supporting new and sustainable approaches to accelerating the development and deployment of clean energy solutions for the agricultural sector. AlphaMundi Group Ltd is a commercial entity based in Switzerland and exclusively dedicated to Impact Investing: profitable investments that generate substantial net benefits to society, while the AlphaMundi Foundation is a Washington, DC based 501c3 charity focused on providing capacity building and impact measurement in order to budding social enterprises.

With both for-profit and not-for-profit business models, the AlphaMundi Organization is well-positioned to collaborate with USAID on this effort. Through a grant to the AlphaMundi Foundation, USAID will support technical assistance and improved impact measurement for companies operating in the energy-ag nexus, while the AlphaMundi Group will contribute in-kind resources in the form of technical expertise and provide direct investments to select energy-ag businesses and catalyze additional follow-on investment.

Should the collaboration prove successful and funding become available in the future, the scope of
this effort may be expanded to support businesses providing solutions to increase the efficiency and availability of water in agriculture in developing countries.

1.3 Project/Activity Description

Resources for the overall GDA will be deployed in two primary forms: 1) grant funding from USAID and in-kind resources from the AlphaMundi Group that will be focused on supporting investment readiness in promising businesses operating in the energy-ag nexus and 2) investment funding from the AlphaMundi managed funds that will be deployed in a subset of the supported companies.

As per the guidance in ADS 204.3.9, the focus of this analysis is on the activities to be implemented by the AlphaMundi Foundation through a grant of USAID funds, however since the goal of the grant funding is to catalyze follow-on investment on the part of the AlphaMundi Group (investment funds), the environmental policies of the Group are also been examined.

The following activities will be undertaken with USAID funds provided to the AlphaMundi Foundation:

1. Company identification and preliminary screening: It is important to cast a wide net in order to identify potential energy/agriculture nexus enterprises with high potential to provide both financial and social welfare returns. AlphaMundi currently relies in large part on referrals and direct contact via staff on the ground in in East Africa (Nairobi) and Latin America (Colombia, Ecuador, & Peru). AlphaMundi also intends to attend and present at many industry events that provides exposure to new companies, and will foster partnerships with consulting firms and incubators. AlphaMundi is are currently in contact with the following organizations regarding relevant pipeline: African Enterprise Challenge Fund, Okocredit, Scope Insight, Open Capital Advisors, and various others. AlphaMundi will continue to work to establish relationships with additional promising partners, such as the California Clean Energy Fund that manages a global network of incubators and accelerators that may be tapped for deal flow.

2. Technical Assistance: Support for refining key business structures and processes is often critical for making a young enterprise investment-ready, and it is anticipated that the bulk of USAID funding will be utilized for technical assistance. Technical Assistance will likely consist of both pre- and post-investment support (described in more detail below) and will typically be structured and delivered by a combination of AlphaMundi management and third-party providers. TA will likely encompass one or more of the following areas:

   a. Financial Planning & Accounting: Budgeting, fundraising, cash flow management, etc. In the diligence and underwriting process, AlphaMundi will thoroughly review and if needed assist with the development of financial statements and projections. AlphaMundi has also assisted with fundraising in the past, bringing in a network of private investors and promoting certain companies on international road shows.

   b. Governance: Board structure and management, shareholder and investor reporting, management and employee incentives, and HR policies. Earlier stage companies often lack proper governance. Although AlphaMundi typically does not take Board seats as a debt investor, this is occasionally done for earlier stage companies in which AlphaMundi is are the first institutional investor. Members of the team currently sit on three company boards and have helped shaped the governance structure of these companies.

   c. Operations: Profitability analysis and model creation, supply chain mapping and

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2 Guidance in ADS 204.3.9 reads: “To the extent that an alliance involves programs and activities that are not funded by USAID, 22 CFR 216 would not apply to activities financed separately by alliance partners utilizing their own funding mechanisms.”
optimization... Operational technical assistance is often done with third party providers, although AlphaMundi staff will occasionally run projects directly with the companies. Examples of past work include:

i. Model creation and profitability analysis for an agricultural company in Kenya that was pivoting business models from a nonprofit to a for-profit
ii. Supply chain optimization for a sweet sorghum company in Uganda
iii. Marketing and Distribution strategy support for a health microinsurance company

Additionally, technical assistance may be provided to help early stage companies adopt the environmental and social safeguards necessary to adhere to AlphaMundi Group's policies and/or analyze and respond to potential climate risks.

3. **Impact Measurement:** The ability to quantify social return through the measuring and reporting on social impact is critical to building the impact investing industry. In addition, social enterprises that demonstrate measurable social return are more likely to attract impact financing and better equipped to determine the best interventions for poverty alleviation. AlphaMundi quantifies social return by measuring outputs, outcomes, and impact:

- **Outputs** are the immediate results with a direct link to the business product or service. For example, a solar lighting company sells 100,000 solar lights to 80,000 families in a given year.
- **Outcomes** are the mid-term effects linked to the business goal. For example, solar lights provide 100 decreased hours of exposure to kerosene, 100 hours of increased productivity, 100 additional study hours, and 10% fewer reported security incidents in a given year.
- **Impact** is the long-range consequence of the product or service, benchmarked against a control group. For example, beneficiaries using solar lights report 10% higher business incomes, achieve 10% higher educational attainable, and live 10% longer than peers using standard kerosene lighting.

While many social enterprises measure outputs, subsidy is needed to quantify outcomes and impact. AlphaMundi Foundation can use grant funding to support impact measurement in the following ways:

- **Financial Support for Impact Measurement:** Grants for the completion of required output reporting that might otherwise create an excess burden on the company
- **Analysis and Improvement of Impact Ratings:** Analysis and detailed improvement plans for GIIRS ratings (Global Impact Investing Reporting Standards); Assistance with tracking Progress Out of Poverty, Social Return on Investment and other proprietary impact measurement tools.
- **Field Surveys:** Beneficiary surveys that go beyond output measurement to quantify outcomes of the products and services delivered by social enterprises
- **Longitudinal studies:** Field surveys over several years to evaluate long-term outcomes and impact of test and control populations.

4. **Research and Development Support:** One of the largest expenses for companies in the development of products and services at the energy-agriculture nexus is research and development, while at the same time, investment capital is only available once a technology is fully proven. A portion of USAID funding may be used to support R&D work. To differentiate from the current cohort of companies supported by Powering Agriculture, it is
envisioned that R&D support will be provided exclusively to later stage companies with established business models that are looking to further innovate in the ag / energy nexus. Specifically, AlphaMundi has interviewed off-grid solar companies whose long-term plans are increasingly focused on product diversification in the agriculture sector (e.g. solar powered pumps, thermal drying facilities, cold storage, etc.). One solar company noted that R&D is the most expensive component of the business beyond sales, and with tight cash flow this is often the first thing to get cut. Grant funding for the development of a broader range of solar-powered agricultural equipment would be an example of the support that could be provided at the in the R&D stage.

Every grant dollar spent on the programs described above would be expected to catalyze five dollars of private investment to select social businesses. AlphaMundi anticipates that, for a majority of program companies, private sector investment will come at least partially from an AlphaMundi managed fund. Investors in these funds include high net worth individuals and institutional investors. The current Fund operated by AlphaMundi is SocialAlpha-Bastion, an open-ended impact debt fund investing predominantly senior debt in both Latin America and East Africa. A mezzanine fund focused on East Africa is in the process of being launched with a 20 million EUR in initial capital provided by a private European bank.

2.0 BASELINE ENVIRONMENTAL INFORMATION

Activities will be distributed throughout Latin America and Africa. As a result, identification of the local conditions, including climate conditions, habitat, fauna, soil, climate, water (surface and ground), air, community, indigenous people, social issues, and host country laws and regulations cannot be done at this time but will be done during the implementation of AlphaMundi Foundation's own environmental policies and procedures.

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

While some of the specific activities to be funded by USAID pose minimal environmental risk (and could be considered categorical exclusions,) the goal of these interventions is to support the scale-up of specific companies operating in the energy-agriculture nexus in developing countries. (If additional funding comes available, this support may be extended to other sectors.) Hence, the impacts of potential scale-up should also be analyzed.

The sorts of companies this program will likely support with predominantly be focused on providing household or village scale solutions. The companies incur risk both on the energy technology side and also on the agricultural application side. The table provides examples of technologies that could be supported and potential environmental risks associated:

<table>
<thead>
<tr>
<th>Example technologies</th>
<th>Examples of potential environmental and social impacts</th>
</tr>
</thead>
</table>
| Solar-powered water pumping | • groundwater depletion  
                                  • land-use changes  
                                  • hazards associated with improper handling/installation of equipment |

3 Includes analysis of environmental and social
| Biogas powered cold storage/milk chilling | • risks due to leakage of methane  
• groundwater/drinking water contamination associated with incomplete digestion or leaching during the digestion process  
• milk spoilage due to malfunctioning or incomplete milk-chilling  
• Health and safety of processing workers and nearby community members |
| --- |
| Biomas-solar hybrid mini grids for agro-processing | • Occupational hazards associated with installation of generation and distribution infrastructure  
• Contamination due to wastewater discharge and solid waste disposal  
• Depletion of groundwater due to plant operation  
• Issues with improper decommissioning and disposal of equipment  
• Health and safety of processing workers and nearby community members |

Importantly, AlphaMundi has an environmental policy that addresses the potential environmental risks for their investments (see policy attached). According to their policy, they:

1. Screen for significant environmental and social risks and specifically excludes entities involved in inherently high-risk endeavors such as mining and drift-net fishing activities, or otherwise on the IFC exclusion list.
2. Analyze potential investments for environmental risks, highlighting compliance both with local regulations and labor laws as well as with international guidelines set by the IFC 1, will develop adequate provisions for the prevention prevent, control and mitigation of negative impacts on the environment.
3. Engage in ongoing monitoring of investees, and terminate relationships with any investees found to be non-compliant with the agreed-upon terms and safeguards.

### 4.0 ENVIRONMENTAL DETERMINATIONS

4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

The recommended environmental determination for the GDA with AlphaMundi is Negative Determination, with Conditions. Although the majority of activities to be funded directly by USAID are unlikely to have a direct effect on the environment, because the goal of these activities is to promote the investment-readiness and eventual expansion of companies, there is the potential for indirect environmental impacts to occur.

Because this is a GDA agreement with AlphaMundi, it is important to advocate for and respect the organization’s capacity to assess, avoid and mitigate for adverse environmental and social impacts. As noted above, AlphaMundi has developed and adopted an environmental policy that addresses potential environmental and social impacts of investments. USAID has reviewed AlphaMundi’s
environmental and social policies and procedures and finds that they meet the substantive requirements of 22 CFR 216.

Upon approval, this determination becomes affirmed, per 22CFR216. Specified conditions, detailed in Section 5, become mandatory obligations of implementation, per ADS 204.

4.2 Climate Risk Management

Climate risks were assessed on the basis of what is currently known about target geographies (Latin America and Africa), the companies that have previously been funded through Powering Agriculture and the sorts of companies currently in AlphaMundi’s pipeline. Current climate variability in addition to general climate change trends and potential impacts were considered. The E3/GCC office was consulted in the assessment.

Because the specific companies which will be supported through this GDA are unknown, it is impossible to analyze associated climate risks in detail. However, examples of risks that could be associated with select potential businesses include:

<table>
<thead>
<tr>
<th>Example technologies</th>
<th>Examples of potentially associated climate risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar-powered water pumping</td>
<td>• changing environmental factors that affect the location and availability of groundwater</td>
</tr>
<tr>
<td></td>
<td>• changing weather patterns that impact crops under production</td>
</tr>
<tr>
<td></td>
<td>• depletion of groundwater exacerbated by changing climate</td>
</tr>
<tr>
<td>Biogas powered cold storage/milk chilling</td>
<td>• climate changes that impact pasture land, water availability or other factors relevant for the cultivation of dairy cows</td>
</tr>
<tr>
<td>Biomas-solar hybrid mini grids for agro-processing</td>
<td>• Extreme weather events that could damage generation and transmission infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Decreased availability of feedstock due to changing weather patterns</td>
</tr>
<tr>
<td></td>
<td>• Depletion of groundwater exacerbated due to changing climate</td>
</tr>
</tbody>
</table>

The potential of activities under this GDA to exacerbate climate risks, such as those noted above, and actions that will be taken to mitigate against this are summarized in the table below.
<table>
<thead>
<tr>
<th>Tasks/Defined or Illustrative Interventions</th>
<th>Climate Risks</th>
<th>Risk Rating</th>
<th>How Risks are Addressed</th>
<th>Opportunities to Strengthen Climate Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>List key risks related to the defined/illustrative interventions identified in the screening and additional assessment.</td>
<td>Companies identified/pursued are vulnerable to climate risks (e.g., infrastructure susceptible to damage by extreme weather)</td>
<td>Low-high</td>
<td>AlphaMundi will consider climate risks when prescreening companies and making decisions regarding which companies to support</td>
<td>The possibility of actively seeking and selecting companies that help support resilience to climate impacts. Companies may be selected that support climate change mitigation.</td>
</tr>
<tr>
<td>Companies identified and pursued exacerbate impacts of climate risks (e.g., by increasing rates of groundwater depletion, etc.)</td>
<td>Companies that are scaled up that remain vulnerable to climate risks</td>
<td>Low-high</td>
<td>AlphaMundi will consider providing technical assistance to companies to support resiliency of their business models, operations, etc. in the face of climate risks and/or support the company in adopting practices that mitigate impacts of climate variability that might be exacerbated by company operations and/or products</td>
<td>Companies are supported and scaled up that provide products and services that support resilience to climate variability. The scale-up of companies that mitigate climate change is supported.</td>
</tr>
<tr>
<td>Products are developed that are vulnerable to climate risks</td>
<td>None identified</td>
<td>N/A</td>
<td>AlphaMundi may measure how companies supported either support resiliency to climate risks or exacerbate their impact</td>
<td></td>
</tr>
<tr>
<td>Products are developed that exacerbate the impacts of climate variability</td>
<td>Products are developed that are vulnerable to climate risks</td>
<td>Low-high</td>
<td>AlphaMundi will consider climate risks when making decisions about deployment of resources for R&amp;D.</td>
<td>Technologies may be developed that support resiliency to climate risks. Technologies may be developed that support climate change mitigation.</td>
</tr>
<tr>
<td>R&amp;D</td>
<td></td>
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<td></td>
<td></td>
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*Because the specific companies are unknown, the specific climate risks associated with these impacts may range from low to high depending on the products sold, the business models pursued, the geographical locations in which they operate and other factors.
5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS
The environmental determinations in this IEE are contingent upon full implementation of the following general implementation and monitoring requirements. USAID will ensure that applicable requirements are met.

AlphaMundi, as an agent seeking to advance a company's ability to implement its activities, may indirectly cause adverse impacts to the environment. As a result, AlphaMundi must take actions to ensure that its investments (companies) are prepared to and do implement measures to assess environmental impacts and to avoid, minimize and then, as a last resort, mitigate through restoration, rehabilitation or compensation, using their own policies and procedures. This entails:

- Follow the environmental policy shared with USAID (see attached) for investment in any companies that have received support under this GDA
- Ensure that any companies that receive R&D support detailed above, also meet the conditions for investment funding as specified in AlphaMundi’s environmental policy
- For companies that receive technical assistance under this GDA, but are not yet investment ready, AlphaMundi should provide support to help them become compliant with AlphaMundi’s environmental policy (necessarily, no investment funds will be deployed in the case that a company remains non-compliant)
6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION

The determinations recommended in this document apply only to projects/activities and sub-activities described herein. Other projects/activities that may arise must be documented in either a separate IEE, an IEE amendment if the activities are within the same project/activity, or other type of environmental compliance document and shall be subject to an environmental analysis within the appropriate documents listed above.

It is confirmed that the projects/activities described herein do not involve actions normally having a significant effect on the environment, including those described in 22CFR216.2(d).

In addition, it is confirmed that the projects/activities described herein do not involve any actions listed below. Any of the following actions would require additional environmental analyses and environmental determinations:

- Support project preparation, project feasibility studies, or engineering design for activities listed in §216.2(d)(1);
- Affect endangered and threatened species or their critical habitats per §216.5, FAA 118, FAA 119;
- Provide support to extractive industries (e.g. mining and quarrying) per FAA 117;
- Promote timber harvesting per FAA 117 and 118;
- Lead to new construction, reconstruction, rehabilitation, or renovation work per §216.2(b)(1);
- Support agro-processing or industrial enterprises per §216.1(b)(4);
- Provide support for regulatory permitting per §216.1(b)(2);
- Lead to privatization of industrial facilities or infrastructure with heavily polluted property per §216.1(b)(4);
- Procure or use genetically engineered organisms per §216.1(b)(1); and/or
- Assist the procurement (including payment in kind, donations, guarantees of credit) or use (including handling, transport, fuel for transport, storage, mixing, loading, application, clean-up of spray equipment, and disposal) of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials. Pesticides cover all insecticides, fungicides, rodenticides, etc. covered under the Federal Insecticide, Fungicide, and Rodenticide Act per §216.2(e) and §216.3(b).

7.0 REVISIONS

Per 22CFR216.3(a)(9), when ongoing programs are revised to incorporate a change in scope or nature, a determination will be made as to whether such change may have an environmental impact not previously assessed. If so, this IEE will be amended to cover the changes. Per ADS 204, it is the responsibility of the USAID A/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity that might require revision of this environmental analysis and environmental determination.

ATTACHMENTS:

1. AlphaMundi Environmental Policies
Environmental Standards Policy

Version 5: 2015.09.30

SocialAlpha Investment Fund SICAV-SIF

Registration Date: 15.07.2009
Registration Number: B 147 036
Domicile: 2 Bd. de la Foire, L-1528 Luxembourg

Advisor: AlphaMundi Group
Auditor: PWC
Counsel: Arendt & Medernach

Overview

AlphaMundi Group (the “Advisor”) is a dedicated impact investment firm committed to investing in social businesses that generate substantial net benefits to society. AlphaMundi is currently investing out of the impact debt fund, SocialAlpha Investment Fund – Bastion, hereafter (the “Fund”). The Fund has a dual mission to reduce poverty and preserve the environment. This mission is embodied in the SocialAlpha Investment Fund Private Placement Memorandum ("SAIF PPM"), requiring the Advisor to consider social and environmental practices when making investment decisions.

As an investment advisor, AlphaMundi first ensures that the Fund will not invest any companies that are involved in prohibited activities as specified by the International Finance Corporation (see Appendix 1). The Advisor then takes an active approach ensuring that all investments meet adequate environmental and social sustainability criteria consistent with IFC’s international environmental, health, and safety guidelines (EHS Guidelines). In addition to complying with international standards, the Advisor embeds additional environmental screening in the due diligence process and uses the Global Impact Investing Reporting Standards (GIIRS) criteria on environment as a guideline when conducting diligence and monitoring investments. Finally, as of FY 2018, all companies will be required to sign a certificate of Environmental and Social Compliance on an annual basis.

Social & Environmental Screening During Diligence

The SAIF PPM requires the fund manager to consider social and environmental practices when making investment decisions. In the due diligence phase, the first step is to formally screen out industries listed in the IFC industry exclusion list in Appendix 1. In addition to this, the Fund also screens out the following industries:

1) Drift net fishing in the marine environment
2) Commercial logging and logging equipment
3) Mining
4) Fossil fuel-based oil or coal utility
5) Pesticides/herbicides subject to international phase-out or bans

During the diligence process, the fund also screens out companies that could have issues around animal welfare or the destruction of critical habitat.

Finally, the fund screens for the following outcomes:

7) Prospective investment's site has not experienced any accidental discharges to air, land, or water or hazardous substances
8) Prospective investment does not involve construction or operations that resulted in physical resettlement or economic displacement involving 5,000 or more people
9) Prospective investment does not involve large scale land conversion and/or degradation

Once an investment passes the screens above, the Advisor will continue diligence to identify any potential social or environmental risk and write a brief report to be included in the investment proposal. The report shall highlight compliance with international guidelines set by the IFC1 and include adequate provisions for actions necessary to prevent, control and mitigate negative impacts on the environment. The report will also indicate the compliance with local labour laws and regulations.

Following the due diligence report and prior to making any investment, the investment manager will discuss ongoing environmental and social monitoring with the company and agree on a set of metrics to be monitored on a quarterly basis. IRIS metrics will be used when possible as this will aid the annual GIIRS rating process. Please see Appendix 3 for a sample of environmental and social metrics collected quarterly for an off-grid solar company and note the inclusion of both IRIS metrics and company specific metrics.

Finally, prior to investment all companies will be required to sign an attestation of their compliance with international, state, and local environmental and social compliance. Please see a sample template in Appendix 2.

Monitoring & Reporting of Existing Portfolio Companies

Once investments are made, they are monitored on a quarterly basis using the metrics defined above. On an annual basis, each portfolio company will be required to sign an updated attestation of environmental and social compliance. Each company is also required to complete a GIIRS assessment that monitors environmental and social standards on a much more comprehensive basis. In the event a portfolio company regresses on any environmental criteria, the investment advisor will discuss the most appropriate course of action for the company to mitigate social and environmental risks. Failure to comply with applicable laws or environmental or social requirements as defined in the attestation agreement (signed annually) will be grounds for the investment advisor to immediately demand repayment of any outstanding money owed to the Fund.

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1 http://www.ifc.org/wps/wcm/connect/554e8d89488658e4b76af76a6515bb18/Final%2B-%2BGGeneral%2BESG%2BGuidelines.pdf?MOD=AJPERES
Roles & Responsibilities

The Board of Directors (hereafter “BOD”) of the Fund reviews and adopts the Policy.

The Advisor of the Fund implements the investment strategy and is responsible for overseeing that the environmental policy in this document is upheld.

Contact Persons

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>Christoph Gosdenoz</td>
<td><a href="mailto:christoph.gosdenoz@alphamundi.ch">christoph.gosdenoz@alphamundi.ch</a></td>
</tr>
<tr>
<td>Advisor</td>
<td>Tim Radjy, AlphaMundi</td>
<td><a href="mailto:tim.radjy@alphamundi.ch">tim.radjy@alphamundi.ch</a></td>
</tr>
<tr>
<td>Counsel</td>
<td>Anne Contreras, Arendt &amp; Medernach</td>
<td><a href="mailto:anne.contreras@arendt.com">anne.contreras@arendt.com</a></td>
</tr>
<tr>
<td>Auditor</td>
<td>Andreas Drossel, PWC</td>
<td><a href="mailto:andreas.drossel@lu.pwc.com">andreas.drossel@lu.pwc.com</a></td>
</tr>
<tr>
<td>Custodian</td>
<td>Sile Moloney, Société Générale</td>
<td><a href="mailto:sile.moloney@sgss.socgen.com">sile.moloney@sgss.socgen.com</a></td>
</tr>
</tbody>
</table>

Christoph Gosdenoz
Chairman
30 September 2017

Tim Radjy
Director
30 September 2017

Veerle Berbers
Director
30 September 2017
Appendix 1

IFC Industry Exclusion List, 2007

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.
- Production or trade in alcoholic beverages (excluding beer and wine).²
- Production or trade in tobacco.
- Gambling, casinos and equivalent enterprises.
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

² This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor’s primary operations.
Appendix 2

Certificate of Environmental and Social Compliance

[Date]

Mr./Mrs. _______________________
AlphaMundi Group
Schützengasse 4
CH-8001 Zurich

Attention: AlphaMundi Group and Social Alpha Investment Fund

Dear Sir/Madam:

In reference to the Promissory Note dated [ ] of [ ] of 20[ ] (the "Promissory Note") between Social Alpha Investment Fund ("SAIF" or the "Creditor") and [ ] (the "Borrower"). With respect to the Environmental and Social Requirements of said Contract:

The Borrower is in compliance with all Applicable Laws in relation to environmental or social issues, having taken in good faith all reasonable measures to achieve such compliance.

The Borrower is in compliance with all Environmental and Social Requirements or, if he has not complied with them, is diligently implementing a corrective action plan.

There are no pending claims or, to the extent that the Borrower is aware, that they have been threatened with respect to environmental or social issues related to the Borrower.

Unless disclosed herein in any other manner, there is no adverse risk or adverse impact with respect to environmental or social matters that has not been properly mitigated, or that should reasonably be mitigated, known to the Borrower.

Sincerely,

[ COMPANY NAME ]

Name: _______________________
Title: _______________________

SocialAlpha SICAV-SIF: Environmental Standards Policy 2017.09.30
## Appendix 3

<table>
<thead>
<tr>
<th>IRSID</th>
<th>Indicator name</th>
<th>Definition</th>
<th>Reporting format</th>
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<tr>
<td>P16706</td>
<td>Energy Produced</td>
<td>Energy produced during the reporting period. Include footnote about energy type(s). If the product uses a mix of fuel types, footnote energy produced by fuel type and other calculation assumptions.</td>
<td>Number of kWh</td>
</tr>
<tr>
<td>P17623</td>
<td>Energy Savings</td>
<td>The amount of energy or fuel savings over the course of the reporting period due to the organization's products or services. Producers of energy efficient products should report: (Units Sold x Energy Used by Product Replaced - Units Sold x Energy Used by Product Produced)</td>
<td>Number of kWh</td>
</tr>
<tr>
<td>P0243</td>
<td>Greenhouse Gas Emissions for Product</td>
<td>Greenhouse gas emissions that would have been produced by the product replaced during the lifetime of the organizations product. Footnote product replaced and source for product emissions information.</td>
<td>Number of metric tonnes of CO2 equivalent</td>
</tr>
<tr>
<td>P01002</td>
<td>Unit of Measure</td>
<td>Unit of measure for reporting the units sold, produced, expired, or installed by the organization.</td>
<td>Selection</td>
</tr>
<tr>
<td>P12790</td>
<td>Units/Volume Produced</td>
<td>Amount of the product or service produced by the organization during the reporting period. Note: This indicator is intended to describe the amount of the product that has been manufactured or the volume of the product that has been cultivated. This metric should be reported in conjunction with Unit of Measure (P01002).</td>
<td>Number, based on Unit of Measure (P01002) selection</td>
</tr>
<tr>
<td>P1263</td>
<td>Units/Volume Sold</td>
<td>Amount of the product or service sold by the organization during the reporting period. This metric should be reported in conjunction with Unit of Measure (P01002).</td>
<td>Number, based on Unit of Measure (P01002) selection</td>
</tr>
<tr>
<td>P16000</td>
<td>New Client Individuals</td>
<td>Number of new individual clients during the reporting period. (e.g. Cumulative units sold minus estimate of units sold that are no longer in operation)</td>
<td>Number of individuals or</td>
</tr>
<tr>
<td>P16031</td>
<td>Total Current Clients</td>
<td>Number of total individuals who are clients on for reporting period - inclusive of new clients and all those on ReadyPay who have not yet fully paid off the system. Should be between new clients and cumulative clients</td>
<td>Number of individuals or household clients</td>
</tr>
<tr>
<td>P1713</td>
<td>Cumulative Client</td>
<td>Total number of clients using battery minus any estimates of systems no longer in use. Most likely equals total units sold, minus any estimates of units sold that are no longer in operation.</td>
<td>Number of individuals or</td>
</tr>
<tr>
<td>% Women</td>
<td>% of cumulative client individuals from above who are</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>% Rural</td>
<td>% of cumulative client individuals from above who are</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>P12476</td>
<td>Communities Served</td>
<td>Number of communities where the organization's products/services were available during the reporting period.</td>
<td>Number of communities</td>
</tr>
<tr>
<td>P2235</td>
<td>Portfolio at risk (Par30)</td>
<td>% of late paying clients by more than 30 days based on ReadyPay data</td>
<td>% of late payments</td>
</tr>
</tbody>
</table>

### If you would like to add other metrics, please add them in the rows below:

<table>
<thead>
<tr>
<th>Communities Served</th>
<th>Total number of phones charged per period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Total phone charging income created per period</td>
</tr>
<tr>
<td>Communities Served</td>
<td>Money saved for phone recharging customers who did not have to pay to have their phones charged</td>
</tr>
<tr>
<td>served</td>
<td>Money saved for phone recharging customers by providing local charging instead of paying to travel distances to</td>
</tr>
</tbody>
</table>
Environmental Standards Policy

Last updated on 2014.12.08

SocialAlpha Investment Fund SICAV-SIF, hereafter “SAIF” or the “Fund”

Registration Date: 15.07.2009  Advisor: AlphaMundi Group
Registration Number: B 147 036  Auditor: PWC
Domicile: 2 Bd. de la Foire, Counsel: Arendt & Medernach
L-1528 Luxembourg

Overview & Objectives

SAIF is a dedicated impact investor committed to investing in social businesses that generate substantial net benefits to society. SAIF is currently investing out of the sub-fund SocialAlpha Bastion, an impact debt fund. As of November 2014, 20% of assets under management were invested in renewable energy companies with environmental sustainability at the core of their business model. For portfolio companies in other sectors, SAIF management embeds environmental screening in the due diligence process and uses the Global Impact Investing Reporting Standards (GIIRS) criteria on environment as a guideline while conducting diligence. Whenever possible, AlphaMundi is committed to measuring and reporting on its environmental impact and working with portfolio companies to set targets for ongoing improvement.

Environmental Screening During Diligence

The SAIF PPM requires the fund manager to consider social and environmental practices when making investment decisions. Specifically, the Fund conducts the following screens during due diligence and reports on this to GIIRS on an annual basis.

1) The Fund formally screens out the following industries in its investment criteria:

   a. Any product or activity deemed illegal under host country laws or regulations or international conventions and agreements
   b. Drift net fishing in the marine environment
   c. Commercial logging and logging equipment
   d. Mining
   e. Nuclear Power / Radioactive Materials
   f. Fossil fuel-based oil or coal utility
   g. Ozone depleting substances subject to international phase out
   h. Persistent organic pollutants (POPS) that are banned or schedule to be phased out of production
i. Pesticides/herbicides subject to international phase-out or bans
j. Wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

2) During the diligence process, the Fund specifically screens for the following issues:
   a. Environmental Issues
   b. Animal welfare
   c. Destruction of critical habitat

3) During the diligence process, the Fund also screens for the following outcomes:
   a. Prospective investment's site has not experienced any accidental discharges to air, land, or water or hazardous substances
   b. Prospective investment does not involve construction or operations that resulted in physical resettlement or economic displacement involving 5,000 or more people
   c. Prospective investment does not involve large scale land acquisition
   d. Prospective investment does not involve large scale land conversion and/or degradation

Monitoring & Reporting of Existing Portfolio Companies

Once investments are made, they are monitored on a quarterly basis using both IRIS metrics and additional metrics unique to each company.

A sample of the environmental portion of a monitoring report can be found in Appendix A. Beyond SAIF’s quarterly monitoring procedures, each portfolio company is committed to filling out a GIIRS assessment on an annual basis. The GIIRS assessment monitors environmental standards on a much more comprehensive basis including all of the data points above. In the event a portfolio company regresses on any environmental criteria, SAIF management will discuss the most appropriate course of action for the company with the goal being to minimize any harm done to the environment.

Roles & Responsibilities

The Board of Directors (hereafter “BOD”) of SAIF reviews and adopts the Policy.

The Advisor of each SAIF sub-fund implements the sub-fund’s investment strategy and is responsible for overseeing that the environmental policy in this document is upheld.
# Contact Persons

<table>
<thead>
<tr>
<th>BOD</th>
<th>Pieter Oostlander, SAIF Chairman</th>
<th><a href="mailto:poostlander@shaerpa.org">poostlander@shaerpa.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
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<td><a href="mailto:tim.radj@alphamundi.ch">tim.radj@alphamundi.ch</a></td>
</tr>
<tr>
<td>Counsel</td>
<td>Anne Contreras, Arendt &amp; Medernach</td>
<td><a href="mailto:anne.contreras@arendt.com">anne.contreras@arendt.com</a></td>
</tr>
<tr>
<td>Auditor</td>
<td>Valérie Arnold, PWC</td>
<td><a href="mailto:valerie.arnold@lu.pwc.com">valerie.arnold@lu.pwc.com</a></td>
</tr>
<tr>
<td>Custodian</td>
<td>Corinne Hentzen, Société Générale</td>
<td><a href="mailto:Corinne.hentzen@sgss.socgen.com">Corinne.hentzen@sgss.socgen.com</a></td>
</tr>
</tbody>
</table>

# Signatures

Tim RADJY
Director

Pieter Oostlander
Chairman

Cornelius Pietzner
Director
## Appendix A

### Select Quarterly Monitoring Categories for a Renewable Energy Company

#### REPRODUCED ENERGY

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P18706</td>
<td>Energy Produced</td>
<td>Energy produced during the reporting period. Include footnote about energy type(s). If the product uses a mix of fuel types, footnote energy produced by fuel type and other calculation assumptions.</td>
</tr>
<tr>
<td>P17623</td>
<td>Energy Savings</td>
<td>The amount of energy or fuel savings over the course of the reporting period due to the organization’s products or services. Producers of energy-efficient products should report: (Units Sold<em>Energy Used by Product Replaced - Units Sold</em>Energy Used by Product). Energy service providers should report the Number of Clients*(Average energy/fuel savings per client over course of the reporting period)</td>
</tr>
<tr>
<td>PD2243</td>
<td>Greenhouse Gas Emissions for Product Replaced</td>
<td>Greenhouse gas emissions that would have been produced by the product replaced during the lifetime of the organization’s product. Footnote product replaced and source for product emissions information. Note: This calculation should be for Greenhouse gas emissions by the product replaced over the course of the product lifetime of the organization’s product and not over the course of the product lifetime of the product that is being replaced.</td>
</tr>
<tr>
<td>PD1602</td>
<td>Unit of Measure</td>
<td>Unit of measure for reporting the units sold, produced, exported, or installed by the organization. This metric should be reported in conjunction with Unit of Measure (PD1602).</td>
</tr>
<tr>
<td>P1263</td>
<td>Units/Volume Sold</td>
<td>Amount of the product or service sold by the organization during the reporting period. Total Units in operation Estimate of cumulative units sold that are still in operation. (e.g. Cumulative units sold minus estimate of units sold that are no longer in operation)</td>
</tr>
<tr>
<td>P0490</td>
<td>New Client Individuals</td>
<td>Number of new individual clients during the reporting period. Total Current Clients Number of clients on PayPlan - inclusive of new clients but not inclusive of individuals who have fully paid for their systems Cumulative Client Individuals Total number of clients from solar systems minus any estimates of systems no longer in use. Most likely equals total units in operation above % Women % of cumulative client individuals from above who are women % Rural % of cumulative client individuals from above who are rural PI2476</td>
</tr>
<tr>
<td>FP2635</td>
<td>Portfolio at risk (Par 30)</td>
<td>If late paying clients by more than 30 days</td>
</tr>
</tbody>
</table>