TIAA-CREF Asset Management

Responsible Investment in Farmland

2013 report on ethical conduct and responsible stewardship of the environment
This report was developed in consultation with TIAA-CREF staff responsible for farmland investments, as well as through research involving asset managers and external stakeholders, all of whom provided insight and context on key issues, opportunities and potential performance indicators. We thank SustainAbility, Inc. for its assistance with developing this document. As with last year’s report, our intent is to improve our stakeholders’ understanding of how we invest in farmland and perform our fiduciary duty over the long term. We believe this is another step toward increased transparency regarding our practices.
Responsible investing

A message from Jose Minaya and Biff Ourso

In 2011, TIAA was one of a group of PRI signatories who developed the Principles for Responsible Investment in Farmland (known as the “Farmland Principles”), which were designed to guide institutional investors who wish to invest in farmland in a responsible manner. The five Farmland Principles are:

1. Promoting environmental sustainability
2. Respecting labor and human rights
3. Respecting existing land and resource rights
4. Upholding high business and ethical standards
5. Reporting on activities and progress towards implementing and promoting the Principles

By signing these Principles, TIAA-CREF committed to integrating them into its responsible investment strategy. We took an important step in late 2012 by releasing our first Responsible Investment in Farmland Report, initiating an ongoing commitment to report on our progress and fulfill Principle 5. In the 2012 report, we introduced our global portfolio and provided a profile of our investments across various crops and regions. We explained how TIAA-CREF invests in farmland and how we work with local asset managers to identify, acquire and monitor our properties, as well as how farm operators manage the actual farms in our portfolio. The report provided details on our investment process and how TIAA-CREF’s corporate governance practices are implemented with regard to farmland properties. The Farmland Principles were discussed extensively with regard to TIAA-CREF’s practices in particular, and examples of how we implement the Principles were provided. We also committed to developing key performance metrics to measure progress in each area.

A copy of the prior report is available on TIAA-CREF’s website https://www.tiaa-cref.org/public/pdf/Farmland-Sustainability-Report.pdf

Over the past year, we have worked closely with our asset managers to examine how we might measure our progress as we continue to implement the Principles. Together, we looked at our practices and processes across the portfolio and formulated key performance indicators (KPIs) for each of the Principles. Some Principles lend themselves easily to being measured, while others are more qualitative in nature or relate to specific regional issues, making a quantifiable metric more complex. We challenged our team to find and articulate meaningful indicators that are relevant and can be consistently measured across such a diverse, global portfolio.

In the Principles in Action section of this report, we explain the relevance of the thirteen KPIs developed, provide an update on our performance, and assess strategies for improvement in each category. Overall, we are pleased with our performance to date. We have identified areas for improvement, and expect that future Farmland Principles reports will demonstrate our continued progress.

Jose Minaya
Head of Natural Resources and Infrastructure Investments

Biff Ourso
Portfolio Manager, Agriculture Investments
Overview of Responsible Investment in Farmland

Global farmland investment has seen growing interest over the last several years. Individual and institutional investors have become increasingly aware of the powerful macroeconomic supply and demand trends impacting agricultural commodities, as well as the diversification, inflation protection and potential to earn attractive returns that farmland investment offers. TIAA-CREF’s investment in this asset class is based on these same fundamental characteristics. However, we also believe that investing in farmland in a responsible and sustainable manner can contribute to helping the world address increasing food and water scarcity concerns by making necessary capital investment into the agricultural sector.

Our farmland investment approach is directly aligned with our overall investment philosophy: we are long-term investors helping to provide for the financial well-being of our customers and clients decades into the future. Farmland for TIAA-CREF is an excellent addition to our portfolio as we look to acquire farmland assets with a 20 to 30 year time horizon. We believe farmland investment is well aligned with our desire to demonstrate performance today, tomorrow, and well into the future.

Today’s global farmland markets are buffeted by a diverse and evolving set of factors, impacting both investment performance and responsible, long-term management and ownership strategies. These factors include greater development of leasing markets outside the United States, improving technology and equipment enabling variable rate application of inputs and GPS mapping, increased interest in “direct sourcing” to better understand the “who”, “where”, and “how” of farm products’ origination, labor supply and working conditions, and evolving regulatory environments (for example, new Brazilian forest codes), amongst many other factors. Furthermore, because of the alignment between a long-term investment strategy and sustainable and responsible investment, many initiatives and strategies can deliver “wins” for both investment and sustainability outcomes, including:

- Soil health: Drives improved yield and can reduce input costs.
- Water efficiency/conservation: Protects groundwater quality, lowers input costs, and addresses issues of water scarcity in water-constrained or drought-prone regions.
- Resource efficiency: Minimizes agricultural waste and nutrient loss, supporting cost savings.
- Biodiversity protection: Maintains integrity of valuable ecosystem services (e.g. erosion control, water cycling, nutrient cycling, and pollination).
- Toxics reduction: Reduces localized pollution, supports worker health, and promotes food safety.
- Labor standards, human rights and safety: Reduces risk of labor interruptions and strengthens workforce.
- Transparency in land acquisition: Mitigates risk from legal liability and security issues.
- Respect for local communities, smallholder farmers and other stakeholders: Supports local communities’ economic and cultural needs.

As a leading investor in and manager of global farmland, TIAA-CREF brings a broad perspective in order to evaluate these issues with an investment and management view that considers not only quantitative economic impacts, but also the qualitative concerns of a diverse stakeholder base including our participants, clients, and the broader community in which we invest. We are cognizant of concerns around key issues like “land grabbing”, displacement of local farmers, and deforestation, and we believe our investment approach sets us apart in addressing these concerns.

Our core investment strategy is based on a partnership model focused on acquiring existing, high-quality farmland and identifying best-in-class local farmers who operate the farms via a leasing arrangement. In doing so, we facilitate the growth of local family operators and agribusinesses while also contributing capital (in the form of the purchase price) to the local market. By employing a comprehensive asset management and farm oversight program, we are able to assess and validate adherence to strict operating practices and analyze potential capital investments that will support enhanced production and sustainability into the future.

Value Chain

Investors in farmland can participate in investments at different points in the agricultural value chain. TIAA-CREF’s farmland portfolio earns returns primarily through lease payments and long-term increases in underlying asset value, although we do take direct exposure to crop production and commodities in a subset of the portfolio. As investors, we distinguish our role from those of our business partners, which include the asset managers, farm operators, and numerous other stakeholders including crop buyers, farm workers, and local communities. Generating sustainable returns depends on managing these relationships in a responsible way.
Permanent Crops

The following diagrams depict the various stakeholders in the farmland investment value chain for permanent and row crops, as well as the interconnections amongst the parties and the roles each serve, to provide a better understanding of the agricultural landscape and illustrate where each group fits in the overall value chain, from the farm to the consumer.
Row Crops

**TIAA-CREF Responsible Investment in Farmland**

- **Row Crops**
  - **WGIM**
    - **farmer**
      - provides oversight of and negotiates lease with **farm**
      - leases contract
      - pays lease payment
      - provides seeds & fertilizes to grow and harvest crop
  - **farm**
    - grows and harvests crop
  - **crop buyer**
    - purchases crop
  - **crop sales proceeds**
  - **investor** (e.g., TIAA & others)
    - provides capital contributions, capital distributions, rent & property sales proceeds
  - **TIAA-CREF Alternative Advisors**
    - sets strategy, manages portfolio
  - **TIAA-CREF Responsible Investment in Farmland**
    - performs due diligence on leases & manages asset management contract

**Ethanol, Livestock, Clothing, Food producers**
Our approach

As investors, TIAA-CREF seeks to be good stewards of the land we own and manage, and we believe that ethical conduct, responsible stewardship of the environment, and respect for those with whom we do business are essential to the long-term performance of our farmland investments. While we do not directly operate most of the farms we own, we work with our asset managers, tenants, and custom operators to promote sound agricultural management practices and look to meet or exceed all environmental standards and labor regulations. Our rigorous due diligence process facilitates fundamental analysis of each property prior to acquisition, and we monitor the performance of each farm individually over time through a detailed management and governance process. Furthermore, TIAA-CREF’s farmland investments are only in regions and countries where we believe adequate controls and management infrastructure are in place to meet our standards for each market.

Asset Managers

TIAA-CREF has two affiliated asset managers, Westchester Group Investment Management Inc. (WGIM) and Radar Propriedades Agrícolas (Radar), who are critical in the implementation of our investment approach. WGIM and Radar identify, acquire, and monitor our farmland investments. They are also responsible for the negotiation of the lease and crop management contracts. Because these asset managers are located in the region of the farmland investments, they are well positioned to work directly with farmers and crop managers within the local communities towards effective management.

WGIM and Radar are required to follow certain TIAA-CREF policies and procedures relating to agricultural investment governance and compliance. In most cases, they also actively participate in both the top-down and bottom-up investment process of identifying regions and crop types as well as specific properties to hold in the portfolio. We have worked closely with both in the development of the Principles, and they have been key contributors to the development of our key performance indicators. Through our majority ownership and board membership, we have visibility into our asset managers’ governance practices and overall procedures, and the ability to guide and influence their management approach.

Pre-acquisition due diligence

Our formal, proven investment process examines each investment opportunity prior to acquisition. This process includes an assessment of the suitability of any third-party managers, joint-venture partners, tenants, or operators as well as an analysis of the property to ensure it meets our investment risk-return criteria.

Our affiliated asset managers and TIAA-CREF’s Global Real Estate Asset Management and Engineering Services team assess the environmental impacts and risks of each farmland investment. In fact, environmental site assessments for all of our controlled farmland investments are conducted prior to acquisition in accordance with the American Society for Testing and Materials (ASTM) or the local country equivalent. The purpose of this assessment is to apply environmental due diligence relating to previous ownership and any boundary disputes, uses, and conditions of a property. The assessment takes into account potential environmental liability relating to hazardous conditions or other relevant issues such as the presence of wetlands and endangered species.

We use extensive pre-acquisition checklists that consider a range of issues pertaining to farmland-specific properties such as pesticide storage practices, vehicle-emissions standards, mineral-ownership rights, landlord-tenant laws, and boundary disputes. We apply a checklist to other tangible and intangible issues as well, including harvesting practices, water rights, property improvements, intellectual property, and patented crops.
Post-acquisition management
Following acquisition, we reassess and monitor each farm’s performance on an annual basis. TIAA-CREF’s affiliated asset managers provide the added benefit of direct, local access and management for our farms as well as knowledge sharing across regions and countries. A key part of the management process is ensuring the environmental sustainability of each farm across our entire portfolio, with activities and strategies aimed at reducing soil erosion and runoff, conserving water, and maintaining or improving soil fertility. These strategies are assessed and monitored at the local level, in conjunction with the tenant or operator. This ensures all parties are aligned with the decision-making process and management strategies aimed at delivering the desired results.

TIAA-CREF has also developed a detailed set of management policies that specifically identify, assess, mitigate, and monitor the relevant risk factors for farmland investing. Key issues addressed include:

- Best management practices requirement in lease and operator agreements
- Requirements for tenants and operators to meet or exceed all laws and regulations regarding environmental and labor practices
- Minimum number of site inspections performed annually to ensure adequate oversight and proper management by tenant or operator
- Foreign Corrupt Practices Act training
- OFAC screening to ensure tenants, sellers, and certain other business relationships are not on the U.S. government’s restricted list of terrorists and specially designated nationals and blocked persons

Farmland research and collaboration
Responsible management extends beyond what happens on our farms to our participation in the evolution of the asset class and shaping the meaning of responsible investment in farmland.

In March 2013, TIAA-CREF launched the TIAA-CREF Center for Farmland Research at the University of Illinois. The new Center will enhance the university’s research and educational initiatives for its students and the agricultural community, including investors, farmers, researchers, and businesses. The TIAA-CREF Center for Farmland Research will conduct research and host academic symposiums focused on farmland practices and the financial aspects of farm management. The Center will serve as a specialized academic unit within the university’s College of Agricultural, Consumer and Environmental Sciences. By participating on an advisory board to the Center, TIAA-CREF will provide guidance and strategic directions as the Center helps to provide greater transparency into the global farmland markets.

In addition, as founding members of the Principles, TIAA-CREF participates on the Farmland Principles Steering Committee, helping to shape the evolution of the Principles and improve the integration of environmental, social and governance considerations into farmland investments through best practices, knowledge-sharing and implementation tools.

Opportunities and Challenges
We recognize that the industry, as well as TIAA-CREF, faces a number of challenges in ensuring responsible and sustainable investment in farmland, but these also present opportunities for continued improvement. These challenges include:

- Complexity, variability, and potential unknowns of owning and managing a diverse farmland portfolio across multiple regions and countries
- Varying degree of influence over tenants and operators based on the nature of the relationship (i.e. leased row crop farms vs. custom-managed permanent crop farms)
- Different dynamics across regions and countries. For example, a more competitive tenant market (as in the U.S. Midwest) allows asset managers to dictate more terms in the lease as compared to less developed markets. Likewise while TIAA-CREF can exercise greater control over permanent crop properties where we custom operate, their concentration in certain areas (e.g. nearly 100% of these farms are located in the U.S. West) limits the availability of alternative or substitute suppliers, operators, and labor pools.
- Size limitations of tenants and operators can impact their ability to justify and afford compliance officers or staff to gather and report additional data

The “Principles in Action” section goes into greater detail on how we put the Principles into practice, how we are addressing these challenges today, and where we hope to go in the future.
Snapshot of TIAA-CREF Farmland Portfolio

At the beginning of 2013, TIAA-CREF managed more than 1.2 million gross acres of globally diversified farmland valued at just over $4.5 billion. Recent acquisitions have resulted in portfolio growth across the U.S., Australia, and Brazil. We continue to focus our portfolio construction and strategy on acquiring high quality row crop producing assets in the principal grain exporting regions of the world, with additional diversification from permanent crop investments such as wine grapes, tree nuts, and tree fruits in premier growing regions of the U.S.

Over the last twelve months since our last report, TIAA-CREF has acquired 27 new properties in the U.S., Australia, and Brazil. This acquisition activity has focused on permanent and row crop transactions in existing regions as well as growth into a number of new areas where we have targeted investment for some time.

In the row crop sector we grew our portfolio in the Western U.S. and expanded our holdings in the U.S. South, and added to our holdings in Brazil, across the productive grains and oilseeds regions of the Center-West and Northeast as well as the sugarcane producing regions of Southeast Brazil. Within the permanent crop space, we have been acquiring both mature (fully producing) and developing assets (farms with to-be-established plantings). By developing new assets including tree nuts, wine grapes, and avocados, we aim to contribute additional food resources into the agricultural value chain.

Portfolio Diversification
Since our first investment in farmland in 2007, we have built a portfolio diversified by geography and crop type. The following charts detail our current farmland holdings.

Agriculture acreage by geography
Based on gross acreage of 1,230,556 as of 6/30/13

<table>
<thead>
<tr>
<th>Geography</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>9.5% South, 2.0% North, 14.4% Western, 9.7% East, 7.7% Center-W, 15.7% Northeast, 7.0% Central/Eastern</td>
</tr>
<tr>
<td>Brazil</td>
<td>20.1% Southeast, 7.7% Center-W, 15.7% Northeast</td>
</tr>
<tr>
<td>USA</td>
<td>5.6% Delta, 4.7% West Coast, 0.1% South, 3.6% Midwest</td>
</tr>
</tbody>
</table>

Agriculture acreage by crop type

<table>
<thead>
<tr>
<th>Crop Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains/Oilseeds</td>
<td>73.0%</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>22.5%</td>
</tr>
<tr>
<td>Winegrapes</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other Permanent Crops</td>
<td>2.6% Other Permanent Crops</td>
</tr>
<tr>
<td>Fruits/Vegetables</td>
<td>0.2% Fruits/Vegetables</td>
</tr>
</tbody>
</table>
TIAA-CREF Farmland Holdings – United States

Map Legend

- **Alfalfa**
- **Almonds/pistachios**
- **Apples**
- **Avocado**
- **Barley**
- **Citrus/oranges**
- **Corn**
- **Cotton**
- **Cranberries**
- **Fruits**
- **Grass**
- **Lemons**
- **Oilseeds**
- **Pulses**
- **Rice**
- **Soybeans**
- **Vegetable**
- **Wheat**
- **Wine Grapes**

Total acreage as of 6/30/13

- **California** 45,018 acres
- **Oregon** 305 acres
- **Idaho** 3,108 acres
- **Washington** 11,964 acres
- **Illinois** 25,367 acres
- **Indiana** 4,606 acres
- **Arkansas** 42,997 acres
- **Mississippi** 24,219 acres
- **Louisiana** 1,844 acres
- **Ohio** 7,904 acres
- **Florida** 1,242 acres
TIAA-CREF Responsible Investment in Farmland

Maranhão
167,670 acres

Piauí
7,848 acres

Bahia
17,681 acres

Mato Grosso
92,145 acres

Mato Grosso do Sul
1,030 acres

Minas Gerais
29,264 acres

São Paulo
217,580 acres

Goias
1,660 acres

Total acreage as of 6/30/13

Map Legend

- Corn
- Cotton
- Soybeans
- Sugarcane
Over the past year we worked with our asset managers and farm operators to examine how we can most effectively measure our progress in adhering to the Principles, and together we formulated the KPIs discussed in this section. These KPIs reflect our view on the most appropriate and relevant factors for the various regions in which we operate, given our investment approach and strategy today. We hope to improve and evolve these measures over time to ensure they remain relevant and consistent with our strategy and operations.

Progress against the KPIs is rated based on the following scale:
- Green = 95+% (satisfactory)
- Yellow = 75-94% (opportunities for improvement exist)
- Red = <75% (improvements needed).

Overall, our portfolio is meeting expectations related to sustainable agricultural practices, labor and worker safety, and ownership/local land rights. However, we believe that we can strive for greater improvements in environmental integrity and soil, water, and input monitoring. Following the KPIs, we have provided greater detail on how we implement the Principles at the farm level. We look forward to reporting on our progress against these measures in future years.

Promoting environmental sustainability

This principle is aimed at promoting measures that protect the environment and contribute to the sustainability of specific crops and locations, for example by reducing soil erosion, protecting biodiversity, reducing chemical emissions, effectively managing water, and mitigating climate impacts.

As long-term investors, we believe that responsible stewardship of the environment is essential to the long-term performance of our farmland investments. Therefore, we created KPIs that track and monitor factors related to the environment, usage of water and other inputs, and sustainable agricultural practices.

### The Principles in action

In adherence with Principle Five, TIAA-CREF has committed to report publicly on our activities related to implementation of the Principles. This section provides greater detail on how we put each Principle into practice and gives examples of our activities. Furthermore, we are excited to introduce a set of key performance indicators (KPIs) to measure our progress in each area.

**Principle 1: Environmental Sustainability**

<table>
<thead>
<tr>
<th>KPI</th>
<th>Rating</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental integrity Percentage of farms in portfolio with appropriate environmental assessment conducted (e.g., Phase 1 Environmental Site Assessment, wetlands, endangered species, etc.)</td>
<td>92%</td>
<td>Yellow</td>
</tr>
<tr>
<td>Chemical and production inputs Percentage of farms in portfolio maintaining detailed input and production records including pesticide and fertilizer applications</td>
<td>92%</td>
<td>Yellow</td>
</tr>
<tr>
<td>Soil health Percentage of farms in portfolio with appropriate ongoing testing to monitor soil health and assess pH and nutrient levels</td>
<td>89%</td>
<td>Yellow</td>
</tr>
<tr>
<td>Sustainable agricultural practices Percentage of farms that utilize research-based practices, e.g., Good Agricultural Practices (GAP), to encourage plant health and minimize negative environmental impact (timing and rates of chemical and fertilizer applications, field scouting, efficient irrigation, crop rotation, tilling practices)</td>
<td>100%</td>
<td>Green</td>
</tr>
<tr>
<td>Water management and conservation Percentage of farms using irrigation in portfolio with detailed records of annual water usage maintained</td>
<td>82%</td>
<td>Yellow</td>
</tr>
<tr>
<td>Resource, energy and fuel conservation Percentage of farms using irrigation that have practices in place for water conservation (e.g., water-conserving technology)</td>
<td>100%</td>
<td>Green</td>
</tr>
<tr>
<td>Land protection Percentage of portfolio invested only in land previously developed for agricultural use (i.e., not converted from other non-agricultural uses)</td>
<td>99%</td>
<td>Green</td>
</tr>
</tbody>
</table>
We strive for environmental sustainability across our entire farmland portfolio, with activities including:

- reduction of soil erosion and rainfall runoff through properly designed roads, berms, culverts, terraces, or use of cover crops;
- water conservation (during irrigation) through grading, leveling, and improved technology that optimizes efficient water delivery;
- avoidance of underground water contamination; and
- monitoring of soil fertility and crop rotations to ensure the long-term health of soil.

Some examples of how our practices have addressed Principle One topics in specific areas of our portfolio are described below.

**Water conservation**
Permanent crop properties utilize water conserving technology, such as drip line or sprinkler irrigation systems (compared to flood or furrow irrigation). New acquisitions that utilize flood or furrow irrigation will be converted to water conserving technology over time. In the U.S. South, precision land leveling is used to increase drainage, control erosion, and reduce overall water use. Other examples of water conserving technology being used include: low pressure center pivot systems with drip nozzles, zero grade irrigation, perimeter pads, and flashboard riser culverts. While zero grading is more capital intensive, it also produces more water-efficient results, cutting water use in half for crops like rice.

Recyclable polyethylene pipe is also used for furrow irrigation on many of our farms. This practice aids in water efficiency by helping to even out water pressure across a field, and the pipe is recycled at the end of the season. In conjunction with precision leveling, the use of polyethylene pipe for furrow irrigation can improve water efficiency by 25%.

**Brazil land study in partnership with university**
Through our asset management partner, Radar, we conducted the largest environmental analysis of Permanent Protection Areas in Brazil. For this analysis, our local team developed a methodology in conjunction with the University of São Paulo that is now used as a reference by the government agency responsible for monitoring and enforcing conservation.

In many cases, land disputes in Brazil were impeding efficient development of the land available for use. Our investment approach established a methodology to address such issues, focusing on improving the productivity of existing farmland rather than merely stimulating development or new farmland, which could lead to greater deforestation in environmentally sensitive areas. Also in the Sao Paolo region, Radar is leading a 10-year project to reforest over 100,000 trees in an effort to help protect the watershed.

**Sustainable Farming Best Practices**
Efforts to integrate sustainable practices into our investment management process begins at due diligence with the requirement that an environmental site assessment be completed on every property acquisition, and mitigation plans must be developed to address any potential issues. We work with environmental experts to analyze the most important potential impacts such as pesticide and fertilizer storage and usage, underground and above-ground storage tanks, and wetlands compliance with the Clean Water Act and EPA regulations (in the U.S.).

We encourage the use of new technologies to increase production, energy and fuel efficiency (i.e., new varieties, auto-steer, GPS, high-efficiency pumps). Based on input from the tenants/operators and informed by agricultural science, research-based practices are used to encourage plant health and minimize negative environmental impact (e.g., timing and rates of chemical and fertilizer applications, field scouting, efficient irrigation, crop rotation, and tillage practices).

Detailed input and production records are maintained (i.e., pesticide and fertilizer applications) for over 90% of the portfolio.

Soil tests or comparable plant tests (i.e., tree tissue sampling) are taken to assess pH and nutritional levels within the first two years of acquisition and every four years thereafter to monitor nutritional levels.

In fact, one of our tenants in Australia was awarded the Brownhill Cup for farming in an economically and environmentally sustainable manner. The tenant adopted a number of practices designed to enhance sustainability, with a strong emphasis on improving soil fertility through practices like no-till and minimum till cropping. The Brownhill Cup was introduced in 1984 and is designed to encourage innovative farming practices that improve sustainability, productivity and profitability in agriculture.
Respecting labor and human rights

We believe that respecting labor and human rights — those of farmers, farm workers, and citizens of farm communities — is an essential element of a successful farm operation. We seek to ensure that our farmland investments support safe, healthy workplaces that add value to the communities while upholding our long-term investment goals. We strive to ensure that our tenants and operators meet or exceed compliance with local laws, and we conduct site visits through our asset managers to verify that worker health and safety practices at the properties meet our standards. Our portfolio did exceptionally well in this regard.

We employ a variety of practices across our farmland portfolio to ensure a standard of practice around labor and human rights:

- Our standard third-party lease agreement for farm operators requires compliance with national and international health and safety standards such as USDA, OSHA and EPA requirements;
- All farm operators offer safety training to their employees;
- Annual Property Inspections are completed to confirm that management of the property is meeting expectations with regard to safety, appropriate signage, and the safe handling of chemicals and pesticides.

Below are examples of projects over the past year that demonstrate our progress on this Principle:

Australia’s agriculture industry as a whole was identified as a priority for action in the country’s work health and safety strategy for 2012 based on statistics from 2000-2011, which showed that job-related deaths in the agriculture, forestry and fishing industry were seven times the national rate. Fortunately, we have not experienced a serious accident or death on any of our managed properties in Australia to date, but given the nature of farming and equipment involved in modern production agriculture, we want to ensure that proper policies and procedures are in place to manage this issue.

In 2012, a Workplace Health & Safety Assessment (WH&S) was completed on all of our existing properties managed in Australia. This assessment made recommendations for safety improvements, which were implemented in 2012 and 2013. The voluntary preventative improvements vary from installing minor warning signs to fitting guards to removal of unnecessary buildings. Residence safety was also reviewed as part of the portfolio wide WH&S assessment. In particular, fire protection mechanisms (fire alarms, fire blankets etc.) were upgraded on many residences.

We also assess the practices of each of our custom farm operators to ensure that they are properly certified and trained for their responsibilities. Where necessary, this also includes verifying and documenting that both the operators and any hired contractors are appropriately licensed or trained for potentially hazardous activities, such as applying chemicals or operating machinery.

Our asset managers work with local tenants to ensure best practices are followed with respect to worker health and safety. Lease and crop management agreements specify adherence to applicable state and federal labor laws and require tenants/operators to maintain proper permits and licenses. Reviews are conducted to determine if there are any issues with OSHA compliance, ERISA representation, labor unions, etc.

WGIM follows a labor policy which has been reviewed and approved by TIAA-CREF. In Brazil, two new policies were implemented to cover site visits and worker housing, ensuring that conditions are monitored and in line with best practices and applicable legislation. Labor and human rights assessments are conducted for all new investments.

<table>
<thead>
<tr>
<th>Principle 2: Respecting Labor and Human rights</th>
<th>KPI</th>
<th>Rating</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor compliance</td>
<td>Percentage of on-site managers and tenants/operators agreeing to comply with state and federal labor laws</td>
<td>100%</td>
<td>Green</td>
</tr>
<tr>
<td>Worker health and safety</td>
<td>Percentage of farms inspected in the past year to confirm that management of the property is meeting expectations and to ensure safe and healthy working conditions, including proper use of pesticides and other chemicals (e.g., practices for mixing and loading sites and use of safety equipment)</td>
<td>100%</td>
<td>Green</td>
</tr>
</tbody>
</table>
Respecting existing land and resource rights

Respect for land and resource rights is critical to our successful investment strategy and will be of increasing importance in the coming decades as competition for scarce resources such as arable land and water intensifies due to increasing global population and food consumption patterns.

For communities, land rights underpin social and economic stability and security. Yet, in some places, land rights may be a source of conflict from ambiguous laws, lack of clear documentation, or historical disputes. There is no one social responsibility model that fits every situation and takes into account different locations and cultures. Instead, it is important to understand and adapt to local environments to find the best ways of working with the community. Therefore, our KPIs are meant to reflect the due diligence procedures and processes performed to ensure we are evaluating the integrity of our land investments and conducting appropriate screening for relevant local factors. Our success in this regard speaks to the diligence of our policy and procedures.

The following are examples of efforts over the past year that demonstrate our progress on this Principle:

We recognize that considering the impact on local communities is an important component of Principle three. In the future, we may consider adding a KPI to help track our progress in this area. We already give attention to this issue in specific parts of our portfolio. For example, over the past two years, our asset manager in Australia has also been exploring corporate social responsibility initiatives whereby we are able to contribute and give back more directly to the communities in which we are invested.

Foreign investment in Australia is often perceived negatively in the eyes of rural communities who view large, corporate investors as a drain on natural resources, with no long-term commitment to the local community. Through our Australian asset manager, TIAA-CREF has funded local initiatives and participated in wider community related activities to demonstrate our commitment to being a socially responsible investor and community partner. For example, we provided assistance to local rural fire authorities who, despite having limited resources, protect not only our farmland but that of other farmers. Also, during harvest time, some of our tenants and operators worked directly with local fire authorities to help prevent potential fire outbreaks.

We will continue to explore and evaluate projects like these in each region where we invest to find meaningful ways to contribute to the local communities.

<table>
<thead>
<tr>
<th>Principle 3: Respecting Existing Land and Resource Rights</th>
<th>KPI</th>
<th>Rating</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership and local land rights</td>
<td>Percentage of investments in portfolio with formal title search and review completed to verify chain of title/ownership</td>
<td>100%</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>Percentage of farms that are compliant with Federal Reclamation Law (Western U.S.) or assessed against applicable aboriginal heritage registers (Australia) or other indigenous rights depending on region</td>
<td>100%</td>
<td>Green</td>
</tr>
</tbody>
</table>
Our asset managers conduct legal due diligence to ensure compliance with applicable laws. They also conduct extensive title searches to ensure the proper chain of ownership. OFAC screens are conducted by our property managers to ensure tenants, sellers, and certain other business relationships are not on the U.S. government’s restricted list of terrorists and specially designated nationals and blocked persons. All tenant and farm management contracts require compliance with laws, and all lease contracts and operator agreements require best management practices. Additionally, asset managers complete a comprehensive attestation checklist of the oversight activities conducted during the year.

Our Brazilian partner, Radar, is a member of the Ethos Institute and follows Global Reporting Initiative (GRI) standards for reporting on its sustainability practices. GRI is a network-based organization that produces a comprehensive sustainability reporting framework that is widely used around the world. By joining GRI, Radar committed to increased transparency and reporting standards to maintain a strong relationship with its stakeholders. Radar became a member of ETHOS Institute in 2010 and adopted a sustainability program in 2011. ETHOS is a non-governmental organization that has been a benchmark organization in South America in creating sustainability standards and helping companies implement sustainability programs.

Several of our tenant farmers are affiliated with various sustainability initiatives related to certain crops. For example, our largest tenant in Brazil, operating more than 43% of TIAA’s farmland there, is a member of BONSUCRO and their sugarcane operations have been certified by the organization. Our second largest tenant (which operates more than 34% of TIAA’s Brazil farmland) participates in several sustainability initiatives, including: Better Cotton Initiative (BCI); Brazilian Responsible Cotton Program (ABR); and Round Table on Responsible Soy Association (RTRS).

In the U.S., our nut crop managers are participating in the U.S. Department of Agriculture GAP (Good Agricultural Practices) program and will be seeking GAP certification for developed orchards that are in production. We anticipate that a significant percentage of orchards that are in production will be certified by the end of 2013. While our apple and cherry orchard managers have obtained GAP certifications for those properties, our goal is to obtain at least 50% certification among all Westchester-managed properties by the end of 2013 and increase this percentage over time.

5 Reporting on activities and progress towards implementing and promoting principles

TIAA-CREF is one of the founding members of the Farmland Principles, and reporting on our activities is an important part of our ongoing engagement with stakeholders. We published our first Farmland Principles report in the fall of 2012 and will continue to do so on an annual basis.

This year we worked closely with our asset managers to develop the key performance indicators described in this report to assess our progress on implementing the Principles and provide additional transparency into how we invest in farmland.

We remain committed to sharing information with clients and other stakeholders on our responsible farmland practices and our progress towards implementing the Farmland Principles.
Looking Ahead

TIAA-CREF believes that the consideration of environmental, social, and governance criteria by investors can produce competitive, long-term financial returns for our clients while also contributing to positive societal outcomes, broader economic development, and a healthy environment for future generations.

To many investors, farmland investing is an opaque discipline that often entails complex financing and ownership structures. Our launch of the TIAA-CREF Center for Farmland Research at the University of Illinois earlier this year serves to shed light on the complex process of investing in farmland and to introduce more transparency for all stakeholders.

TIAA-CREF sponsors research on environmental, social, and governance practices, hosts conferences, and works with regulators, legislators, self-regulatory organizations and other institutional investors to educate the business community about governance, shareholder rights and responsible investing. We regularly submit written comments on regulatory proposals and testify before various governmental bodies, administrative agencies and self-regulatory organizations. We participate in public and industry debates—as well as related conferences and symposia—dealing with governance issues in domestic and international markets.

We hope this report aids in furthering the conversation of what it means to be a responsible investor in farmland. Through our key performance indicators, we strive to improve our performance against these metrics over the coming years, and we will continue to evolve and improve these measures as our strategy and practices continue to evolve.

Contact Us

For more information, please visit www.tiaa-cref.org/assetmanagement.

Additional information on the Principles for Responsible Investment in Farmland can be found at www.unpri.org.

Overview of TIAA-CREF

TIAA-CREF is a Fortune 100 financial services company with a history of investing spanning more than 90 years. We are a leading financial services organization with $564 billion in assets under management (as of 12/31/13). The firm is a leader in helping those in the academic, medical, cultural, governmental and research fields plan for retirement, and life’s other goals. Nearly 4 million individuals trust us to help support their financial well-being.

TIAA-CREF has a long history of socially responsible investment, including becoming a signatory of the UN PRI in 2009. We regularly publish information on our overall approach and performance on socially responsible investing, which can be accessed by visiting www.tiaa-cref.org/ri2013.
We believe that we have an opportunity to take a leadership role in defining how institutional investors can approach sustainable and responsible investment that contributes to meeting the world's increasing needs for food, fiber, and fuel, while also remaining a valued partner in the local communities around the world where we invest in farmland.
This material is for informational purposes only and should not be regarded as a recommendation or an offer to buy or sell any product or service to which this information may relate. Certain products and services may not be available to all entities or persons. Past performance does not guarantee future results.

TIAA-CREF Asset Management provides investment advice and portfolio management services to the TIAA-CREF group of companies through the following entities: Teachers Advisors, Inc., TIAA-CREF Investment Management, LLC, TIAA-CREF Alternatives Advisors, LLC, and Teachers Insurance and Annuity Association of America. Teachers Advisors, Inc., TIAA-CREF Investment Management, LLC, and TIAA-CREF Alternatives Advisors, LLC are registered investment advisers and wholly owned subsidiary of Teachers Insurance and Annuity Association of America (TIAA).

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