How Foundations can use Program-Related Investments to Address Water Challenges

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EXECUTIVE SUMMARY

This report focuses on the need for capital in the water sector and how foundations can address water issues through program-related investments (PRIs).

- **Water Needs:** Millions of people around the world lack access to clean water for drinking and sanitation leading to thousands of premature deaths.[1] In addition, the lack of access to safe water results in up to economic losses equivalent to 7% of GDP in some countries every year.[2]
- **Value of PRIs:** PRIs are below-market investments that align with a foundation's mission. PRIs encourage more sustainable change by building financial capacity in the recipient organizations, allowing foundations to redeploy capital toward other initiatives, and bringing additional investors into projects.

For the past few months, we have performed research and interviewed foundation representatives to better understand the state of program-related investing, particularly for foundations with water-related missions. Through that process, we came across a number of interesting findings, including:

- **PRI Teams**: Foundations are developing PRIs out of grant budgets, endowment allocations, and sometimes even a separate PRI budget. The origin of the PRI investment depends on a range of factors from program staff expertise to the endowment manager's financial targets and incentives.
- **Identifying Water Projects for Investment**: There is a wide range of search processes that foundations use to select water projects for investment. Large foundations tend to pay for consulting services or have recipients approach them, while smaller foundations

[1] "Water: Overview", The World Bank, 2016
[2] "Water: Overview", The World Bank, 2016

leverage industry groups, their own grantee pool, or local geographical connections to identify promising investments.

- **PRI Structure**: Foundation staff should focus on building out high-impact investments with terms that make sense for the foundation and recipient. The legal terms of whether the investment is a PRI or a mission-related investment can be defined later, and often doesn't matter in the execution of the investment.
- **Collaboration:** Often times, multiple foundations co-invest in a PRI, with one foundation taking the lead on the project. Foundations that are new to the space can use these collaborations to break in to the PRI world, or leverage their capital through other joint investments, such as note programs.
- **Geographical Trends**: Water-related health and sanitation issues attract a large portion of the capital flowing from U.S.-based foundations to international organizations. The domestic water issues that foundations are investing in include the California drought, health of the Colorado River, and promoting Integrated Water Management (IWM). While there is not a strong philanthropic presence in domestic drinking water issues at the moment, experts say that may change following the crisis in Flint, Michigan.
- **Impact of Market Conditions:** The jury is out on the relationship between market conditions and PRIs. Some foundations say that low interest rate environments make PRIs less necessary, while others contend that foundations should not provide capital to organizations that already have access to commercial loans.

Taking this learning into account, our recommendations highlight how foundations can use their capital to support water initiatives using PRIs. Foundations can increase the impact of their philanthropy by promoting further education and research efforts, influencing policy makers, taking on more risk, and seeding new business models. In incorporating PRIs into a foundation's water-related strategy, there are opportunities to invest in water trading programs, product research and development, social enterprises, social impact bonds, and note programs. Foundations can also strengthen their internal capacity by increasing collaboration between program and endowment staff as they develop innovative PRIs together.

WATER-RELATED PHILANTHROPY

DEFINING WATER-RELATED PHILANTHROPY

For the purposes of this report, we define foundations using the IRS Tax Code definition for 501(c)(3) tax exempt, or charitable, organizations. Foundations much provide grants to charitable organizations and individuals as their primary activity, which differentiates them from other tax-exempt organizations that focus on the direct operation of charitable programs.[3] Within the philanthropy space, private foundations have a single major source of funding, whereas public charities and community foundations pool funds from a broader set of sources.

U.S.-based private foundations contribute significantly to social and environmental impact initiatives around the world, giving an estimated $54.7 billion in 2013.[4] Foundations, from the smallest individual donors to community foundations and large philanthropies, provide funding to a wide range of social causes such as economic and community development, environmental

[3] "Life Cycle of a Public Charity/Private Foundation", Internal Revenue Service, 2015
[4] *U.S. Giving Reaches an Estimated $54.7 billion in 2013*, The Foundation Center, 2014

conservation, education, housing and shelter, and public health. In 2010, U.S.-based foundations gave over $1.2 billion to environmental causes in particular, including land and water conservation, sustainable agriculture, clean energy, and environmental education.[5]

The water sector, per this report, includes all organizations, both nonprofit and for-profit, that use capital to help solve water problems related to human and environmental needs around the world. The water sector is vast, ranging from drinking water supply, transport, and treatment, to water used for residential and commercial needs, sanitation, agriculture, energy, and environmental processes. Our definition is not limited to the WASH (water, sanitation, and hygiene) space, but this issue does elicit a large amount of attention and funding from the philanthropic sector.

The players in the water sector span every organizational category, from government agencies, to utilities, non-profits, and private industry. Coordination at the national and international level is a challenge, as water issues are often local and regional in nature. The ability for we, as humans, to observe many of the water systems at work – from underground piping to water chemistry – is another barrier to collective action, investment, and political will.

IMPORTANCE OF WATER-RELATED PHILANTHROPY

While investment from foundations to the water sector has been growing over time, it is not yet commensurate with the need. Water is an essential element for every person, economy, and ecosystem on the planet.[6] However, the resource is not enjoyed equally across the globe. Approximately 663 million people, or one in 10, lack access to safe water.[7] Moving forward, water quality and quantity issues are expected to persist. The World Economic Forum lists water on both of its “top ten” lists for global risks that are most likely to occur and which will have the most impact.[8] Water and health issues are also closely intertwined. According to the World Health organization, poor sanitation, water, and hygiene lead to about 675,000 premature deaths annually.[9] Finally, the lack of access to safe water results in up to economic losses equivalent to 7% of GDP in some countries every year.[10]

These statistics tell us that more capital is needed from the private and philanthropic sectors to affect change in the water space, especially for the world’s most disadvantaged populations. Although many people look to the World Bank, IMF, and other international aid organizations to make significant investments in water, they cannot solve the problems alone. In FY14, International Finance Corporation (IFC) invested US$222 million in water and waste management projects[11] The World Bank Water Global Practice is currently responsible for a portfolio of approximately US$22 billion in lending through 187 projects and country, regional and global packages of economic and technical expertise, with around 77% of lending for water supply,

[5] "Grantmaking Foundations Nationwide, 2011 Stats about the Number of Foundations, Assets, Giving, and Gifts Received by All Active Grantmaking Foundations in the U.S.", Foundation Center, 2014
[6] *Toward Water Sustainability: A Blueprint for Philanthropy*, Water Funder Initiative, 2016
[7] “Water Facts: Facts About Water and Sanitation”, Water.org, 2016
[8] *The Global Risks Report 2016, 11th Edition,* World Economic Forum, 2016
[9] “Water: Overview”, The World Bank, 2016
[10] “Water: Overview”, The World Bank, 2016
[11] IFC and Water, International Finance Corporation, 2015

sanitation, and irrigation services. However, the Bank acknowledges that one of its primary goals is to help clients leverage financing from other sources, such as philanthropy and the domestic private sector. International aid organizations will not be able to tackle water challenges out of their own budgets.

Foundations play a unique role in a sector that affects all communities, and offers disproportionate challenges to people facing poverty, pollution, and poor governance. Foundations are well-suited to complement public funds and private investment in water, providing capital to individuals and organizations that would not otherwise have access to financing with realistic timelines or terms. From our research, including the documents listed in the Research Sources section at the end of the report, we identified four main areas where foundation capital can have the most impact in the water sector:

- **Educating the Public**: Foundation can fund organizations that educate professionals and the public on the complexities of the water system. What can people do to help? What do people do that is harming the system? Where can people find the information they need to manage local water systems sustainably?
- **Increasing Political Will**: Foundations play a key role in pushing environmentally-sound water policies and projects forward at all levels by funding organizations that get out the vote or empower citizens to take action.
- **Promoting Science and Technology Research**: The water space is ripe for new technologies to promote everything from efficiency, to quality, to permeable urban spaces. Foundations can help seed new technologies that are not ready for venture capital.
- **Strengthening Networks**: The water sector is made up of hundreds of actors working on behalf of local water systems and impacts. Foundations play a key role in helping those individual organizations share best practices and/or collaborate on watershed-, state- and national-level initiatives.

CURRENT STATUS

KEY STATISTICS

The Foundation Center is the leading source of information on how foundations support the water, sanitation, and hygiene sector. The center is a key information resource for foundations across issue areas, but launched a WASH-specific initiative (WASHFunders.org) in October 2011 with support from the Conrad N. Hilton Foundation and a handful of other key water-focused philanthropies. Based on our research, the WASHFunders.org 2012 Research Brief remains one of the most cited publications for statistics at the intersection of U.S.-based philanthropies and water issues.

Per that report, the number of U.S. foundations giving to WASH hit 78 in 2010, while the recipient totals hit 127, comprising $144.2 million of grant dollars.[12] Other facts from the report include:

[12] *Foundation Funding for Water, Sanitation, and Hygiene*, WASHfunders.org, 2012 (Note: All grant dollars are attributed to the year in which the grant was authorized, even if the funds are disbursed over a multi-year period)

- WASH grants and investments comprised 1.7% of all of the giving from U.S.-based foundations to international organizations in that year.
- The Bill & Melinda Gates Foundation led the charge for the private foundations with $74.4 million dollars towards WASH in 2009 - 2010.
- The top five private foundations awarded 94% of the total grant dollars to WASH that year, meaning that the private foundation funding originates with a small, concentrated group of organizations.
- The Pepsi Co. Foundation gave $12.1 million to WASH in 2009-2010, leading the top-giving corporate foundations, which include Newman's Own, NIKE, Coca-Cola, and Alcoa.

There are many ways to categorize foundation giving to the water sector, including by issue area and by types of support. Per the report, the most common water issues foundations give to include water sector policy and administrative management (20%), basic drinking water supply support (17%), and WASH research and basic sanitation (14% each). The giving is further broken down into types of support, which reveals that program support is the vast majority of the grant money, with only about half of that amount to research.

The report focuses solely on grants, meaning that impact investing in the form of program-related investments, mission related investing from the endowment team, etc. are not included in these statistics. This is largely because foundations are required to report on grants, so the data is accessible for the Foundation Center.[13] Moving forward, it will be important for the Foundation Center – and other industry organizations – to capture PRIs in its data to get a full picture of philanthropic impact in the water space.

In addition, the Foundation Center will want to consider the approach that foundations like the Pisces Foundation are taking to the water sector. Rather than providing grants toward single focus water projects, the Pisces Foundation is promoting integrated water resources management (IWRM), or integrated water management (IWM), as its primary mission. The foundation, just a few years old, provides approximately half of its water-oriented capital to the Water Foundation to help promote a more holistic approach to managing water in California. IWM is a cross-sectoral policy approach, designed to "replace the traditional, fragmented sectoral approach to water resources and management that has led to poor services and unsustainable resource use".[14] The Pisces organization believes that IWM provides a "great lens to think more holistically" about the water sector and to achieve more benefits for people and the environment as a result.[15]

MAJOR PLAYERS

We performed additional research to identify foundations with water missions in the U.S. The search resulted in approximately 40 U.S.-based foundations of varying size, geographical and issue interests, and giving structures. The list is not comprehensive, however, because of the amount of small, family or community-funded foundations that fly under the radar during internet searches. Jon Jensen of the Park Foundation agreed that there are likely "many more water-related foundations out there", based on his experience. "Many are small and hyper-local and

[13] Phone Interview, Seema Shah of the Foundation Center
[14] *What is IWRM*, Global Water Partnership, 2010
[15] Phone Interview, Tom Owens of the Pisces Foundation

others are not exclusively focused on water as their sole issue".[16] He also anticipates that foundation activity around drinking water will grow following the discovery of lead in the drinking water in Flint, Michigan. [17]

From our research, we started to understand the prevalence of international grant-making from U.S.-based foundations interested in solving water challenges. We also noted the wide range in size of the foundations in the water space, based on their endowments but also average gift size. Finally, we noticed that water interests are often tucked into other stated areas of interest (e.g., the "Environmental Conservation Program" at the Gordon and Betty Moore Foundation). This may prevent some understanding of which foundations are willing to invest in water projects. The spreadsheet with our findings is located in TABLE 1 in the Appendix.

In our search to define the full set of U.S.-based foundations interested in solving water challenges, we also uncovered a few key organizations that are playing a unifying role in the space. Some of these organizations play a critical role in helping smaller foundations be effective in tackling water challenges. For example, both the Park Foundation and Pisces Foundation look to the Stormwater Funders Group for joint funding ideas or to share best practices.[18] (An example of a joint investment made by multiple foundations in water is located in the Freshwater Trust case study below.)

Alternatively, organizations such as Confluence Philanthropy and Mission Investors Exchange advise foundation endowments on how to invest in a mission-aligned way. Details about these, and other, organizations driving action in the water philanthropy space are included in LIST 1 in the Appendix.

CASE STUDY: THE FRESHWATER TRUST

Name and Date: The Freshwater Trust (TFT) Program-Related Investment 2013

Purpose: Provided growth capital to the Freshwater Trust to bring on more staff, purchase technology, and scale up its water quality trading program with an end goal of restoring river and stream quality

Foundations Involved: David and Lucile Packard Foundation, Kresge Foundation, Gordon and Betty Moore Foundation

Investment Terms: A total of $5 million dollars invested from the three foundations.

BARRIERS

Amount of Funds Needed: There is a significant need for capital in the water sector and the current philanthropic giving from foundations in the U.S. is only $144.2 million in 2010, whereas funding from the World Bank and the IFC was over $22.2 billion. The Organization for Economic Cooperation and Development (OECD) estimates that annual investments of $1.3 trillion are

[16] Phone Interview, Jon Jensen of the Park Foundation
[17] Phone Interview, Jon Jensen of the Park Foundation
[18] Phone Interview, Jon Jensen of the Park Foundation

required to repair and maintain water infrastructure in developed and emerging countries alone.[19] It will be difficult for philanthropies to keep pace with the scale and intensity of the need.

Collaboration: There is a need for additional collaboration between philanthropic entities to make improvements in the protection and provision of water resources. This collaboration would lead to joint investments as well as a reduction in duplicate efforts. For example, many of the PRIs that came up during our interviews required multiple foundations to invest to hit the level of capital needed for a project. We also suspect that many foundations in the water space are duplicating efforts in seeking out investible opportunities, whether it be through internal research or hiring consultants to do similar searches.

Lack of Scalability: Water issues are regional by nature and specifications for projects are hard to replicate and scale in other areas. For example, the purchase of water rights through a local land or water trust is a strategy that only impacts the specific regions where these trusts exist. It is important for foundations to invest in projects that have impact locally, but can also be translated to other geographies or applications.

Preference for Grants: Funding recipients typically prefer grants, which may be limiting to foundations who want to play with below-market investments (such as program-related investments) as part of their strategy. Recipients often see the added time-cost, tracking, and financial implications of paying back a loan as a burden.

OPPORTUNITIES

Continued mission alignment: Foundations often do not explicitly state an interest in water, although they may have a stated interest in an area closely related to water, like sanitation or forests and ecosystem health. The more that foundations define and prioritize specific segments of the water sector that they are interested in, the easier it will be to identify and attract projects to support.

Reuse Impact Metrics: The environmental impact metrics used in grant-making can be directly re-used for impact-driven investments. Dan Winterson of the Moore Foundation confirmed that he does just that. For example, protecting stream miles would be the same in either scenario. PRI staff can spend the bulk of their time thinking through the financial terms, rather than reinventing the wheel on the impact metrics.

Take on Risk: Foundations can fund early-stage, innovative ideas related to water that other venture capitalists aren't ready to finance due to perceived risks or modest financial returns. This includes products as well as water trading schemes and other market-based solutions. These projects would benefit from the positive reputation that comes from being affiliated with trusted philanthropies.

Political Will: Philanthropy can play a catalytic role by focusing coordinated action and resources that educate the public on a particular topic, such as water resources. While not explicitly political,

[19] "Required Infrastructure Needs", World Economic Forum, 2013

foundations have shown that they can move the needle on public issues by funding the right messengers, especially at the local and regional level where public funding is often tight.

Strengthen Networks: There is an opportunity for foundations to share ideas on how to get more involved in water issues around the world. This can be done through the publication of reports and guides or through networking events.

Educate Public: The reason why there are not more foundations with water-related missions may be due to a lack of education about the need for capital investments in this sector. Foundations can promote or create educational materials that address individual behaviors in regards to water use or organizational actions for global issues.

PROGRAM-RELATED INVESTMENTS (PRIS)

DEFINING PRIS

Foundations can achieve their charitable goals by supporting ventures through grants, where a designated amount of money is given to the organization or individual without expectation of repayment. However, foundations and beneficiaries can also benefit from the deployment of program-related investments (PRIs). PRIs are investments made into non-profit or for-profit organizations that receive below market rate returns. They are most often loans, but can also take the form of loan guarantees, lines of credit, linked deposits, cash deposits, bonds, or equity investments.[20] PRIs should not be expected to grow a foundation's endowment significantly, but they do provide repayment of funds that can then be recycled into new investments. They must be program-related and used to support issues and projects that align with the foundation's philanthropic mission.

IMPORTANCE OF PRIS

PRI recipients access capital at reduced interest rates and develop a credit history to qualify for additional funding in the future. Receiving a loan from a foundation is useful for recipients who would not otherwise qualify for a loan from a commercial bank and allows for a degree of ambiguity in the outcome of the investment.[21] If a foundation's recipient base also seeks money from commercial lenders, then foundation PRIs are more valuable in rising markets. However, many foundations make a point to not lend to organizations that can't access commercial loans to maximize the impact of their giving.[22]

Foundations aim to create sustainable impact in their given areas of interest through their monetary giving. With grants, projects are given an amount of money to use but this does not necessarily create an incentive to build long-lasting capacity to operate without subsequent donations. A venture can use the PRI as a bridge financial instrument to attract new investors later on. With the use of the PRI, the beneficiary is able to establish itself financially and the

[20] *Strategies to Maximize Your Philanthropic Capital: A Guide to Program-Related Investments*, Mission Investors Exchange, Thomson Reuters Foundation, Linklaters LLP, 2012
[21] Phone Interview, Kim Elliman of the Open Space Institute
[22] Phone Interview, Kim Elliman of the Open Space Institute

foundation can see that the initiative is a viable solution to the social or environmental challenge being addressed.

PRIs also provide valuable assistance to organizations that need short-term financial support, but have the capacity to receive money in the future. We spoke with a number of foundations to use PRIs to help non-profits take advantage of a timely opportunity, as discussed in the Colorado River Delta PRI below.

CASE STUDY: THE COLORADO RIVER DELTA

Name and Date: Colorado River Delta Program-Related Investment 2012

Purpose: To allow a coalition of nonprofit conservation partners to purchase the water rights of the Colorado River Delta to restore the depleted watersheds and the river's flow to the Gulf of California.

Lead Foundation and Organizations Involved: The Packard Foundation, The Nature Conservancy, ProNatura Noroeste, the Sonoran Institute, the Environmental Defense Fund

Investment Terms: The Packard Foundation loaned $1.3 million to The Nature Conservancy, ProNatura Noroeste, the Sonoran Institute, and the Environmental Defense Fund to acquire the permanent water rights in Mexico to provide 20 billion gallons of water to the Colorado River Delta ecosystem over four years (since the signing of the bilateral agreement between the U.S. and Mexico in 2012). The PRI is expected to be repaid by the leasing of water rights through this water trust.

Unique Details: This PRI was used to support an inter-governmental agreement between the U.S. and Mexico to capture water rights from the Colorado River. In a conversation with Susan Phinney Silver at the Packard Foundation, the PRI was given to provide capital quickly and seize this opportunity to purchase these water rights and was in support of a collaboration with other organizations in addition to the ones mentioned above.

STRUCTURE OF PRI INVESTMENTS

PRIs are usually loans of at least $100,000 at an interest rate of around 1%, with terms ranging from around 3 to 10 years, as they are not intended to be substitutes for long-term commercial borrowing.[23] [24] The terms of PRIs can vary. For example, Jon Jensen from the Park Foundation noted that his PRIs typically range from $200,000 to $500,000, last from 3 to 11 years, and have interest rates between 0.5% to 2%. PRIs can also be structured as convertible loans. If the recipient is not be able to repay the investment, the terms can be changed so that at least a portion of the funding becomes a grant. The Open Space Institute uses this tool, according to President and CEO Kim Elliman.

Within the foundation, the source of the PRI funding can come from a foundation's programmatic budget, endowment, or another designated PRI fund. While the Moore Foundation sources its

[23] Phone Interview, Kim Elliman of the Open Space Institute
[24] Phone Interview, Jon Jensen of the Park Foundation

PRIs out of its programmatic budget, other foundations such as the Packard, Park, and Gates Foundations have a separate allocation of money for their PRIs.[25] The models of impact investing practiced by the Park, Packard, and Moore Foundation can be found in FIGURES 1-3 in the Appendix. PRIs can be made by either the programmatic staff or financial managers working with the endowment. The Packard Foundation has a unique, designated staff focused on "mission investing" that is trained in creating investments for impact, separate from the endowment team.[26]

IDENTIFYING PRI RECIPIENTS

It is important for foundations to establish a relationship with PRI recipients for accountability reasons, so many foundations chose to provide PRI loans to previous grantees or local organizations that they are familiar with. Larger foundations are able to hire consults to bring a list of investible opportunities to them, to attend major events or forums to network with people from various organizations, and are more likely to be sought out based on name recognition.[27] An example of a foundation with a clearly delineated approach to how it identifies its PRI recipients is the Skoll Foundation, which invests in one of two groups - either through financial intermediaries or through awarded social entrepreneurs who have already received grant funding.[28]

Projects with clear revenue streams are easiest to identify as PRI (loan) candidates. However, these revenue streams do not limit PRI recipients to for-profit enterprises, as other organizations can pay back PRI loans through government funds or other fundraising efforts. In regards to environmental issues, forest projects are strong candidates for PRIs because there is a clear income stream off of the forest to then be used to repay the PRI.[29] The following case study of a PRI from the Packard Foundation for a river restoration project exhibits the various revenue streams used to repay the initial loan.

[25] Phone Interview, Dan Winterson of the Moore Foundation
[26] Phone Interview, Susan Phinney Silver of the Packard Foundation
[27] Phone Interview, Susan Phinney Silver of the Packard Foundation
[28] Phone Interview, Eric Cooperstrom of the Skoll Foundation
[29] Phone Interview, Kim Elliman of the Open Space Institute

CASE STUDY: L.A. RIVER GREENWAY TRAIL

Name and Date: L.A. River Greenway Trail 2015

Purpose: To fund the restoration of the Los Angeles River along the longest continuous stretch of the adjacent greenway trail in the San Fernando Valley. The money will be used to increase public access and maintain native vegetation and wildlife in this area.

Lead Foundation and Organizations Involved: The Packard Foundation, Community Conservation Solutions

Investment Terms: A $700,000 bridge loan was provided by the Packard Foundation in support of the LA River Greenway Trail Project in Studio City in June 2015.

Unique Details: The revenue streams available to this project will be from some ecosystem services usage fees on the park, but the majority of the payback will be through government

CURRENT STATUS

KEY STATISTICS

Program-related investments have been used as tools for promoting the mission of U.S. foundations for over 40 years, with the Ford Foundation often credited as the first to use PRIs in the 1960s.[30] According to the Foundation Center PRIs made by U.S. foundations totaled $734 million during 2006 and 2007, which was less than 1% of the $91.9 billion in overall charitable giving.[31] Today, the number of foundations in the U.S. who use PRIs remains a small percentage, with less than 1% of foundations implementing PRIs between 2011-2013, and of these foundations, 60% have assets totaling over $200 million.[32]

Collectively, U.S. foundations provided PRIs ranging in size from $10,000 to $50 million in 2006 and 2007, with the majority of the investments between $100,000 and $500,000.[33] During that same time period, 11% of the PRIs were made for environmental causes, with the leading program areas being education (26%), economic/community development (17%), and housing and shelter (14%), in terms of PRI dollars allocated.[34] A study conducted by FSG Social Impact Advisors in 2007 showed that PRI loans default at a rate of about 4%.[35]

[30] Leveraging the Power of Foundations: An Analysis of Program-Related Investments, Indiana University School of Philanthropy, 2010
[31] *Doing Good With Foundation Assets: An Updated Look at Program-related Investments*, The Foundation Center, 2010
[32] Final Evaluation: The Rockefeller Foundation's Program-Related Investment Portfolio, Arabella Advisors, 2013
[33] "Grantmaking Foundations Nationwide, 2011 Stats about the Number of Foundations, Assets, Giving, and Gifts Received by All Active Grantmaking Foundations in the U.S.", Foundation Center, 2014
[34] *Doing Good With Foundation Assets: An Updated Look at Program-related Investments*, The Foundation Center, 2010
[35] "Recycling Charitable Dollars: IRS Gives Green Light to More Program-Related Investments", Journal of Accountancy, 2013

MAJOR PLAYERS

There are multiple U.S. foundations that make PRIs today, with the largest givers by dollar amount being: the ALSAM Foundation, the John D. and Catherine T. MacArthur Foundation, the David and Lucile Packard Foundation, the Ford Foundation, and the Bill & Melinda Gates Foundation, according to data from the Foundation Center in 2007. A more comprehensive list of foundations that use PRIs can be found in LIST 2 in the Appendix.

BARRIERS

Lack of knowledge on PRIs or channels for information sharing between foundations: Currently, there are minimal collaborative efforts between foundations to share best practices on how to implement PRIs.

Program managers at foundations lack financial expertise to execute PRIs: There is a need for training in PRI management for grant-making teams who have knowledge of the program areas. This could involve additional transaction costs in training current staff or hiring additional personnel to manage PRIs.

Identifying opportunities for PRIs: Foundations want to invest in communities or organizations they understand and have a relationship with, which can limit the geographic scope of their options. Additionally, there have to be recipients who are working on projects relevant to the foundation who are interested in taking on a PRI.

Limitations in the form PRIs can take: Although most PRIs are made in the form of loans, they can also take the form of equity investments, which are higher risk with expected higher returns. Short-term working capital loans have often proven to be less effective PRI applications, especially for organizations facing organizational or market challenges, according to the Skoll Foundation.

OPPORTUNITIES

Participation in note programs: Note programs sponsored by larger foundations or nonprofits pool capital for community investment projects to reduce individual risks and increase access to geographies and program areas that would otherwise be inaccessible to smaller foundations. An example of this is the Calvert Foundation Community Investment Note Program, which allows foundations with $100,000 or more to participate.

Small foundations have the flexibility to adopt new PRI programs: Small foundations can move more quickly than larger foundations or other financial institutions in responding to recipients.

Small foundations have specialized knowledge in their focus areas: Other investors interested in the PRI projects supported by foundations can benefit greatly from the regional or subject matter expertise of the foundation.

PRIs will become more important as interest rates increase: For recipients who would also be seeking funding from commercial lenders, PRIs provide an inexpensive source of capital at below market rates for non-profit and for-profit organizations.

Moving towards responsible investing: PRI programs can introduce foundations to investing principles aligned with their mission that can eventually be used to guide endowment investments. Foundations should focus on designing investments for impact, and leave it to the lawyers to decide whether it is a program-related investment or a mission-related, market rate investment, as expressed by Susan Phinney Silver of the Packard Foundation.

Partnerships with another larger financial institution: Foundations can implement PRIs using a guarantee in which a partnership with another larger institution offers financial backing.[36]

RECOMMENDATIONS FOR EXPANDING THE USE OF PRIS IN WATER-RELATED PHILANTRHOPY

Product R&D: Foundations can fund research and development for products that improve water quality and/or access that would not attract conventional venture capital funding. These products or ideas would be lacking in scale, extensive testing, or have smaller market opportunities. Foundations could be willing to accept higher risk from these social entrepreneurs if the product supports their mission.

Social Enterprises: Foundations can give loans for water-related start-ups or for-profit social enterprises at below market interest rates. This could be especially advantageous for recipients during rising markets when commercial loans have high interest rates, or for international organizations who do not have access to bank loans.

Social Impact Bonds: Foundations can provide patient and flexible capital to a set of stacked investors as part of a social impact bond. The premise is that the government sets aside funding for private or nonprofit entities who can meet various targets (e.g., show that lead levels in household water in Flint, MI falls below a certain level). The program developers request capital from investors, and the investors are paid out when the government pays out. Foundations are unique in that they are willing to forgo interest on their investment if government does not pay out in full.

Media / Education: Foundations can fund publications that educate the public on water and other environmental issues. These publications could be eligible for a PRI if membership dues, subscriptions, or other consistent revenue streams can be vetted.

Collaboration between Program and Endowment Staff: A foundation's mission and its financial decisions can be integrated by engaging outsourced endowment managers on its mission and values while also building knowledge of PRI management within the program staff.

- Example: Park Foundation considers PRIs as part of its endowment management or investing strategy. Jon Jensen says that "a $200,000 grant would blow a hole in their grant budget". However, if PRIs pulled from endowment capital, it pulls down the average earnings of the full portfolio. PRIs are currently limited to 1% of Park Foundation's endowment investments, and range from 200,000 - 500,000 at .5% - 2% interest over 3-11 years

[36] Phone Interview, Eric Cooperstrom of the Skoll Foundation

Leverage Note Programs: Note programs can aggregate funds between foundations to increase impact for water infrastructure projects. The Nature Conservancy and Calvert Investments are paving the way for other organizations to consider pooling capital from smaller foundations to make meaningful impact and invest at a level that attracts outside investors to a project.

Standard Metrics for Impact: Foundations can support the development of standardized impact metrics across an industry. Impact metrics that can be measured and tracked would help foundations better evaluate the effectiveness of their grants and PRIs, and make it easier for other financial institutions adopt impact investing. The Packard Foundation provided support for the development of the conservation metrics that are now incorporated into the IRIS tool managed by the Global Impact Investing Network (GIIN)

Water-focused Missions: Given the significant need for more funding and support for water initiatives around the world, foundations with environmental and conservation program areas can more clearly define a focus on water issues in their missions.

Stay Current: Many of the PRIs that we discussed with foundations occurred at an important and fleeting political moment related to a social issue. Foundations were able to assist a coalition of organizations in the Colorado River Delta PRI in providing quick funding to purchase water rights with the bilateral agreement between the U.S. and Mexico.

Diverse Revenue Streams: Foundations can hedge their risk by selecting PRI candidates with multiple, diverse revenue streams or funding sources. If the original revenue stream falls through, the loan recipient can tap into other funding to pay back the principal and interest.

SUGGESTIONS FOR FUTURE RESEARCH

PRI-RELATED

- How can foundations collaborate and share best practices surrounding the adoption and implementation of PRIs?
- In implementing PRIs, how can foundations build capacity internally with their program staff?
- How does the social or environmental impact of projects or enterprises differ from those receiving grants vs. those receiving PRIs?

FOUNDATIONS WITH WATER MISSIONS

- How can Foundations identify investible opportunities in direct investments outside of pool of current grant recipients or local organizations?
- How can foundation support organizations (e.g., Foundation Center) help make it clearer to grantees which organizations are interested in which water issues and geographical areas?
- What are the best metrics for water-related investments as an asset class and would these results of these metrics attract mainstream investors?

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- Pisces Foundation
- The Foundation Center (WASH Funders Initiative)

Our Yale School of Forestry and Environmental Studies advisors, Professor Brad Gentry and Deborah Spaulding, also posed tough questions and provided invaluable insights along the way.

APPENDICES

TABLE 1: WATER-FOCUSED FOUNDATIONS IN THE UNITED STATES

	Water Issue	Geographic Scope	Endowment	Giving Structure	Average Award
Abell Foundation	Maryland's water and natural resources	Regional	$350,433,538	PRIs	high: $200,000; low: $10,000
Alcoa Foundation	Replenish	International			
Ann Campana Judge Foundation	Potable water, sanitation, and health in developing countries	International		Grants	
Bill and Melinda Gates Foundation	Water, sanitation, and hygiene	International	$41 billion	Both	
Blue Moon Foundation	Climate change resiliency	International			
California Water Foundation	Conservation	Regional	$100,000,000	Both	
Clean Water Foundation	Bringing safe, clean water to children in developing countries and those hit by natural disasters such as floods, earthquakes and similar life-threatening events	International		Grants	
Coca-Cola Foundation	Access to clean water, water conservation and recycling	International	$114,927,625		
Conrad Hilton Foundation	Water access	International	$2.6 billion	Both	high: $2,300,000; low: $100
David and Lucile Packard Foundation	Oceans, Climate, Land, Freshwater	National		Both	
Dixon Water Foundation	Land management	Regional	$53,849,225		

Dow Chemical Company Foundation	Water Access and Reuse	International			
Ethos Water Fund	Water, sanitation and hygiene education programs in water-stressed countries	International	$12,289,381		
Ford Foundation	Sustainable development, community rights over resources, climate resiliency	International	$12 billion		
Fundación Avina	Water Access	International			
Heron Foundation	Poverty	National	$291,570,556	Both	
Howard G. Buffett Foundation / Global Water Initiative	Water management for agriculture	International	$221,968,000	Both	
Knight Foundation	Communities	National	$2,285,378	Both	high: $11,000,000; low: $2,500
Laird Norton Family Foundation	Watershed Stewardship	Regional			high: $200,000; low: $25,000
Life-giving Water Fund	Wells in Zambia	International		Grants	
MacArthur Foundation	Conservation, Climate, Sustainable Development	International	$6.47 billion	Both	
Osprey Foundation	WASH	International		Both	
Park Foundation	Drinking water resources	Regional			
Pentair Foundation	Safe Water, Water Conservation, Reuse			Grants	
PepsiCo Foundation	Water access, Columbia's Earth Institute water research	International	$40,771,760	Grants	
Pisces Foundation	Water programs in U.S.	National	$40,276,285	Grants	
Rockefeller Foundation	Water and Fisheries	International			high: $3 million; low: $60,000
Skoll Foundation	Environmental Sustainability:	International		Both	

	Water Management				
Stewardship Foundation	Children at Risk (Water not specifically called out)	National		Grants	
Stone Family Foundation	Education and Hospice			Grants	high: $50,000; low: $10,000
The Groundwater Foundation	Water education	National	$247,646.00	Grants	
Voss Foundation	Clean water, sanitation, and hygiene in Sub-Saharan Africa	International	$505,278	Grants	
Wallace Genetic Foundation, Inc.	WASH, watersheds, agriculture	National		Grants	
Walton Family Foundation	Freshwater conservation		$101,000,000	Grants	

LIST 1: GUIDANCE ORGANIZATIONS FOR FOUNDATIONS WITH WATER INTERESTS

These initiatives are designed to coordinate and scale action among foundations that care about water issues.

- WASHfunders.org: This web portal aims to facilitate better collaboration and more strategic decision-making among funders, as well as raise awareness about water and the full global water, sanitation, and hygiene (WASH) continuum among donors.[37] Four water-oriented foundations provided seed capital for the initiative, which the Foundation Center operates on a day-to-day basis. WASHfunders.org offers profiles on 17 distinct WASH funders (i.e., foundations), as well as a global funding map, case studies, knowledge center, and funder toolkit.
- Water Funder Initiative: A collaborative effort by eight foundations to identify and activate promising water solutions through strategic philanthropic investments in the United States, starting in the West.[38] Susan Bell, Principal of Susan Bell & Associates and former Vice President of the William and Flora Hewlett Foundation, led this domestic-focused, 15-month collaboration. The group gathered the most promising ideas from across the American West—and from a broad spectrum of stakeholders, including NGO experts, policymakers, funders, scientists, farmers, attorneys, water utility executives, and others. WFI interviewed more than 140 individuals and held six workshops in four western states. The WFI initiative resulted in the March 2016 document “Toward Water Sustainability: A Blueprint for Philanthropy”.

[37] “About”, WASHFunders.org, 2016
[38] “About the Water Funder Initiative (WFI)”, Water Funder Initiative, 2016

- Stormwater Funders Group: A convening organization within the Funders Network for Smart Growth and Livable Communities designed for grant making institutions engaged in the sustainable stormwater and green infrastructure field. The group convenes intimate gatherings of donors, staff, directors, and trustees with the goal of facilitating a strategic conversation about where philanthropic resources can have the greatest impact.
- Consultative Group on Biological Diversity (CGBD): A professional association of foundation executives and trustees who make environmental grants. Their 60 member foundations focus on protection of the quality and diversity of life, domestically and internationally, and the organization itself promotes peer-to-peer learning and the sharing of knowledge among its members.

These organizations are most relevant to foundation endowment managers and investment officers striving to make foundation investments align as closely as possible to the foundation's core issue areas, including water.

- Ceres Water Investors Hub: Drives greater consideration of water in investment decision-making. This group offers peer-to-peer sharing of leading ESG and water integration and engagement practices and a forum to develop more effective research methods to assess water risks and opportunities. The Hub also explores ideas that help drive investing in solutions that support sustainable water resources for generations to come.
- Confluence Philanthropy: Supports and catalyzes the work of private, public and community foundations, individual donors, and investment advisors who are committed to moving philanthropy towards mission-aligned investment. The organization directs foundations to a number of resources including program-related investment intermediaries who will channel foundation dollars to vetted investments.
- Mission Investors Exchange: A national network of foundations and mission investing organizations who use or are learning to use program-related and mission-related investing as a strategy to accomplish their philanthropic goals. The organization offers a variety of training, events, and networking opportunities, including workshops, webinars, a three-day Mission Investing Institute and a biennial national conference.

TABLE 2: EXAMPLES OF ORGANIZATIONS AT THE INTERSECTION OF WATER RESOURCE ISSUES AND FOUNDATION WORK

Organization Name	Description
Ceres	Non-profit sustainability advocacy organization
Water.org	International non-profit organization focused on safe water and sanitation access
Imagine H2O	Startup accelerator for enterprises related to water technology
Carbon Disclosure Project (CDP) Water Program	Greenhouse gas and other resource use disclosure for major corporations
Piper Hill Partners	Investment advisors for global water industry
Federal Street Advisors	Investment advisors, co-sponsored a water conference in 2015
Eiris	Environmental, social, and governance (ESG) investment research

Sustainability Accounting Standards Board	Non-profit organization that has developed accounting principles for social and environmental measures
Institutional Shareholder Services, Inc.	Shareholder advocacy advisor for responsible investment
UN Sustainable Stock Exchanges Initiative	United Nations project to promote sustainable investing
Conservation Finance Network	Online information platform for topics on finance to further environmental conservation
Pacific Institute	Research and policy analysis organization on the environment and sustainable development
Public-Private Infrastructure Advisory Facility (PIAF) at the World Bank	Multi-donor trust fund for sustainable development
Sustainable Insight Capital Management	Investment management firm following sustainable investing principles
Forum for Sustainable & Responsible Investment	Membership association advocating for ESG criteria
Grantspace	Tools and resources for non-profits hosted by the Foundation Center

TABLE 2: LARGEST PRI PROVIDERS WITH ENVIRONMENTAL PROGRAMS IN THE UNITED STATES

Foundation	Total PRI Amount (2006-2007)
MacArthur Foundation	$60,326,800
Packard Foundation	$50,487,648
Bill and Melinda Gates Foundation	$37,000,000
Walton Family Foundation	$33,083,817
Kalamazoo Community Foundation	$20,150,000
Heron Foundation	$10,200,000
The Gordon and Betty Moore Foundation	$10,000,000

FIGURE 1: PARK FOUNDATION MODEL OF IMPACT INVESTING

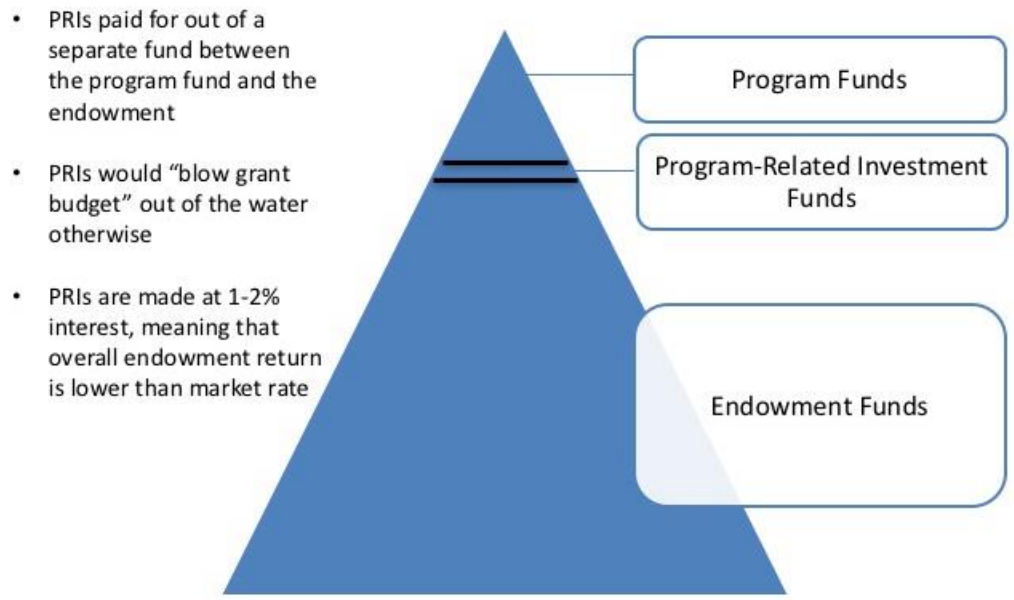


FIGURE 2: PACKARD FOUNDATION MODEL OF IMPACT INVESTING

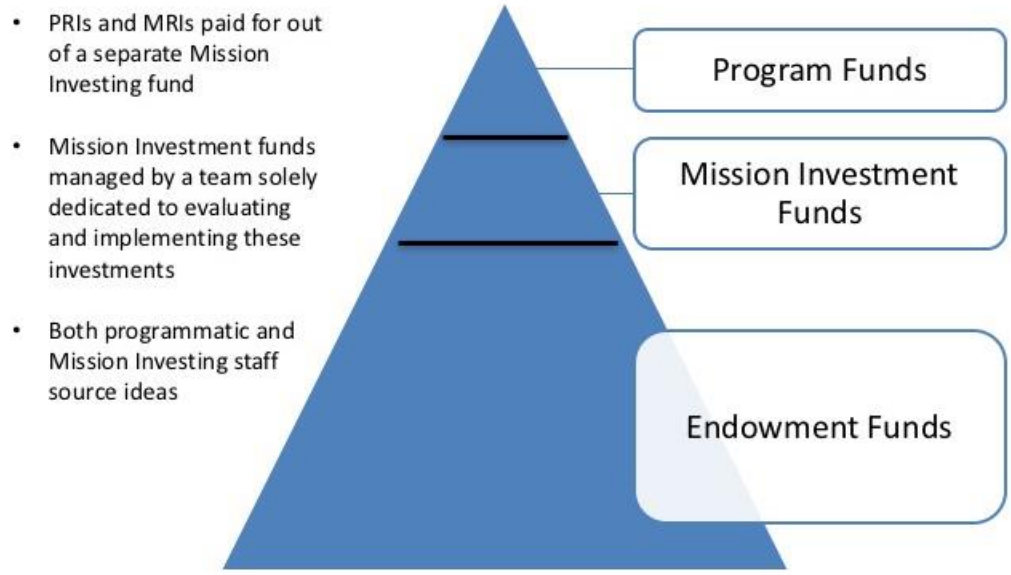
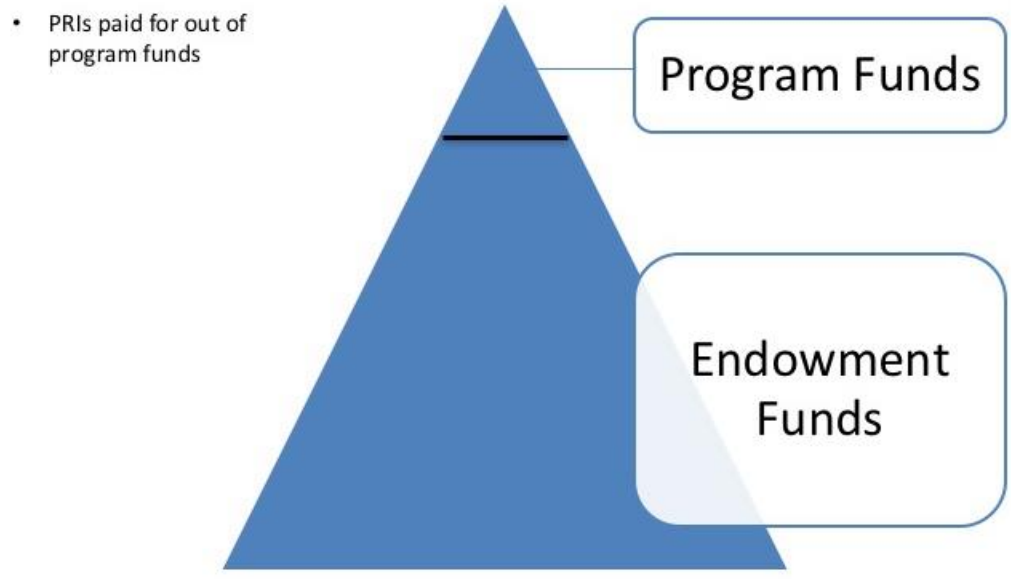


FIGURE 3: MOORE FOUNDATION MODEL OF IMPACT INVESTING



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