

## SOCIAL IMPACT ANALYSIS – IT’S ALL GOOD

World of Good’s ultimate goal is to alleviate the effects of poverty and improve the well being of artisan producers and their families in developing nations around the world. Artisan enterprises have great potential for spurring economic growth and artisan collectives often provide a vital source of primary and supplementary income for families in the poorest segments of society.

As a result of globalization, there is increasing pressure on less formally educated populations to migrate into cities and join the factory-based workforce often with very poor working conditions. Since World of Good’s partner artisan collectives are home or community-based, they help to enhance rural economies and diminish urban migration. In addition, the majority of World of Good’s partner artisans are women which helps sustain families and communities while generating local economies and preserving traditional art forms. Also, since artisan work requires nominal amounts of land and does not need large factories, or vast amounts of power and energy, it is also environmentally friendly.

World of Good makes a significant social impact by providing historically marginalized artisan producer communities direct, low-cost access to the US consumer base. World of Good identifies the following quantifiable social benefits of an investment in the company:

1. **Increase in direct wages for rural artisans in developing countries, and therefore access to resources, because of World of Good brand, distribution channels, and fair trade standards.** <sup>1</sup> World of Good creates new demand for artisan handicraft products and allows rural collectives to increase output and the number of artisans who participate.
2. **Increased in future earnings of children due to better nutrition and access to education.** As household income increases, children are more likely to be adequately nourished and to stay in school. Inadequate nutrition in childhood affects long term physical development, as well as the development of cognitive skills. Often, childhood malnutrition also leads to an individual receiving less schooling, which translates directly into lower lifetime earnings for the people affected.
3. **Impact of strategic economic development projects in sourcing partner communities.** World of Good Development Organization will invest in targeted, discrete economic development and social infrastructure projects in sourcing partner communities. These projects will be funded by a portion of World of Good’s profits as well as money raised through special initiatives with partner retailers.

Together, these three indicators generate significant social benefits:

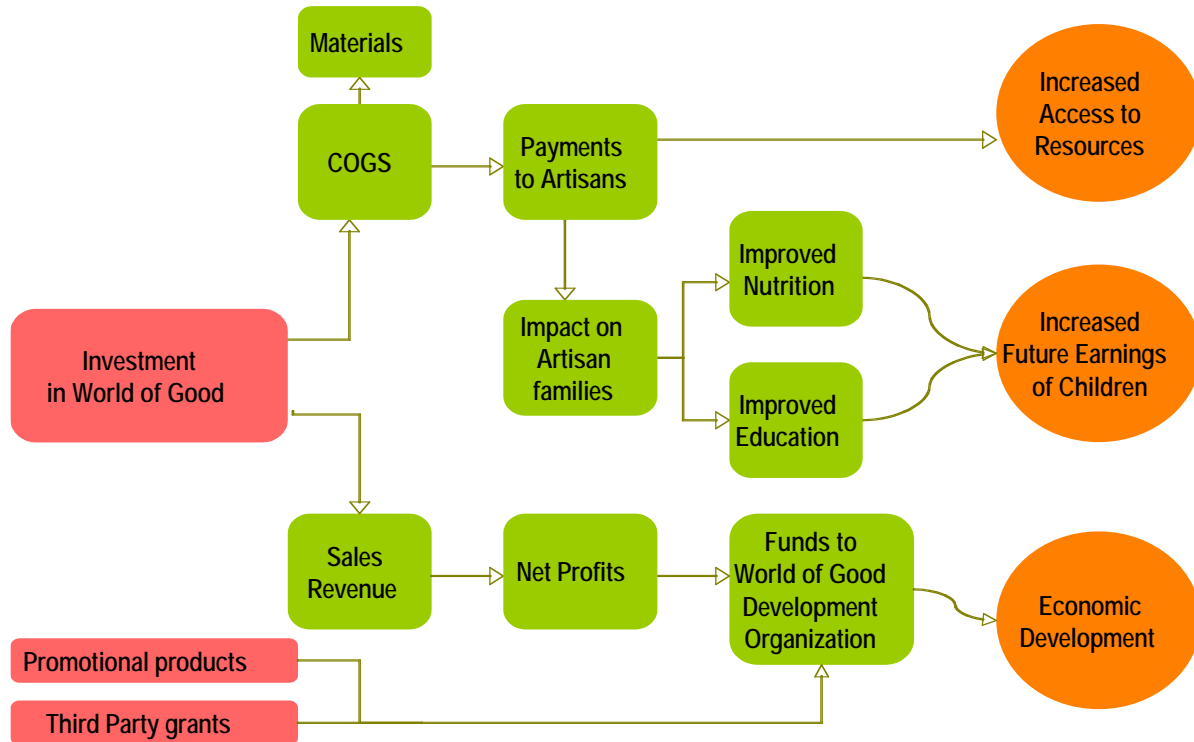
Table 1. *Social impact cash flows of World of Good’s activities in developing countries*

(x \$1,000)	2005	2006	2007	2008	2009	...	2014
Increased Wages to Artisan Producers	\$ 805	\$ 3,766	\$ 13,088	\$ 25,231	\$ 37,374	...	\$ 98,089
Increased Future Earnings of Children	\$ 1,169	\$ 4,301	\$ 15,653	\$ 19,598	\$ 19,598	...	\$ 19,598
Economic Development by WoGDO	\$ 498	\$ 1,722	\$ 8,599	\$ 17,698	\$ 26,216	...	\$ 151,657
Total Social Impact Cash Flows	\$ 2,471	\$ 9,789	\$ 37,339	\$ 62,527	\$ 83,187	...	\$ 269,344
Present Value of Social Cash Flows	\$ 2,059	\$ 6,798	\$ 21,608	\$ 30,154	\$ 33,431	...	\$ 43,501
<b>Grand Total</b>	<b>\$ 316,081</b>						

Expressed in US purchasing power parity, World of Good’s impact within rural communities amounts to an SNPV of US \$309.3 million on an investment of \$6.75 million discounted, corresponding to a project SIRR (Social IRR) of over 1956 percent. Without adjusting for purchasing power parity in sourcing partner countries vs. US purchasing power, the project SNPV would amount to US \$81.7 million, corresponding to a 424 percent SIRR.<sup>2</sup> The main sensitivities of our analysis lay in adjusting this cash flow for what a similar impact would be in a US situation and for the percentage of products we source from different countries.

Our social impact analysis continues with further discussion about the contributions from each of these social impact indicators and the calculation methodology of the social return of an investment in World of Good.

## Tracing the Social Impact of an Investment in World of Good Inc.



## INCREASED WAGES FOR RURAL ARTISANS IN DEVELOPING COUNTRIES

*“Trade can provide a powerful engine for economic growth and poverty reduction. For that engine to function, poor countries need access to rich-country markets. Expanding market access can accelerate economic growth, while at the same time creating new opportunities for the poor.”*

-- Oxfam International, 2002

By creating a brand and distribution channels that give artisans in developing countries access to the US consumer market, World of Good generates wages and creates jobs in artisan collectives that would not otherwise exist. In its first year of operations, World of Good was the largest customer of many of its sourcing partners. Indeed, the vast majority of goods purchased by World of Good would not have been manufactured a) without a relationship based on trust and fair-trade principles, and b) without World of Good’s brand and distribution channels in the United States.

Thus, we feel that the full price of World of Good purchases (minus costs for materials) from artisan collectives (that would not have happened without World of Good) represent social benefits because collectives either distribute those wages directly to the artisans or withhold a small portion for local economic development. Increased wages for artisans are in and of themselves an indicator of social benefits because they enable artisans to make purchases, such as shelter, food, medicine, and educational opportunity for their families. In addition, any local taxes deducted from artisan wages will also eventually serve a social purpose, given the local economic situations, and are therefore counted as indicators of the social benefits they will be used to generate.

Table 2. *Social impact of increased wages for artisan producers as a result of World of Good*

(x \$1,000)	2005	2006	2007	2008	2009	...	2014
Increased Wages for Artisan Producers	\$ 159	\$ 743	\$ 2,870	\$ 5,533	\$ 8,197	...	\$ 21,512
Impact of Demand-side Multiplier	\$ 222	\$ 1,041	\$ 4,018	\$ 7,747	\$ 11,475	...	\$ 30,117
Impact @ Purchasing Power Parity	\$ 805	\$ 3,766	\$ 13,088	\$ 25,231	\$ 37,374	...	\$ 98,089
Discounted Cash Flows	\$ 671	\$ 2,615	\$ 7,574	\$ 12,168	\$ 15,020	...	\$ 15,842
Present Value of Social Impact	\$ 121,502						

For the calculation of the social impact of increased wages to rural artisans, we assumed the average dollar value per unit received by an artisan to be \$3 and that 40% of that is used to cover costs of materials and contributions.<sup>3</sup>

We also assumed that 85% of artisan collective sales to World of Good would not have been made without World of Good's brand distribution channel to the US market because none of our suppliers were operating at capacity before partnering with World of Good and many of them have increased capacity to take advantage of the opportunity to sell to World of Good.

Next, we accounted for the additional stimulus to local rural economies from World of Good's activities by applying a demand-side multiplier to the increase in artisan wages.<sup>4</sup> Finally, we have applied purchasing power parity conversion ratios to account for differences in the cost of living and relative prices in the countries where World of Good sources products.<sup>5</sup>

## INCREASED FUTURE EARNINGS OF CHILDREN BECAUSE OF BETTER NUTRITION & ACCESS TO EDUCATION

Over the next 10 years, we estimate that World of Good's normal business operations will increase the incomes of more than 35,000 artisan households in the handicraft industry in rural communities of developing nations<sup>6</sup> and increase their earnings above the extreme poverty level.<sup>7</sup> Studies have shown that as income increases for families living in extreme poverty earning less than \$2 per day to earning more than \$2 per day there are many potentially quantifiable positive social impacts such as decreased infant mortality, longer life expectancy, and lower health care costs. We have chosen to quantify two factors that have a significant impact on the lifetime earning potential and productivity of the children in these families: improved nutrition and increased access to education.

There is strong evidence that inadequate nutrition in childhood affects long term physical development, as well as the development of cognitive skills. This in turn affects productivity later in life. In addition, childhood malnutrition often leads to an individual receiving less schooling, which translates directly into further lower lifetime earnings for the people affected. Low levels of investment in child health and nutrition therefore have far-reaching consequences on economic growth, distribution, and welfare.<sup>8</sup> There is strong evidence of a positive, causal relationship between income and health, that is, healthier workers are more productive and hence wealthier.<sup>9</sup> Thus, the change in worker earnings through World of Good leads to long term health, educational and economic gains for their children.

Table 3. *Social impact of improved nutrition and more access to education*

(x \$1,000)	2005	2006	2007	2008	2009	...	2014
Impact of Nutrition on Future Earnings	\$ 90	\$ 332	\$ 1,208	\$ 1,512	\$ 1,512	...	\$ 1,512
Impact of Education on Future Earnings	\$ 141	\$ 517	\$ 1,882	\$ 2,356	\$ 2,356	...	\$ 2,356
Impact with Demand-side Multiplier	\$ 323	\$ 1,189	\$ 4,325	\$ 5,416	\$ 5,416	...	\$ 5,416
Impact @ Purchasing Power Parity	\$ 1,169	\$ 4,301	\$ 15,653	\$ 19,598	\$ 19,598	...	\$ 19,598
Discounted Cash Flows	\$ 974	\$ 2,987	\$ 9,058	\$ 9,451	\$ 7,876	...	\$ 3,165
Present Value of Social Impact	\$ 53,900						

We assume that the 35,000 artisan families gain in their incomes. A study of the impacts of fair trade on producers in 20 artisan collectives around the world found that their wages increased by 28% over their next best alternative job opportunity because of fair trade practices.<sup>10</sup> This fair trade wage premium represents a significant boost to these families' income. We also assume that each new impacted artisan household has 3.5 children<sup>11</sup> and use "nutrition and education multipliers" to calculate a series of cash flows that represent children's increased lifetime earnings which are then discounted back to the present.<sup>12</sup>

We use findings from studies of *Progres*, Mexico's ground-breaking anti-poverty program, to calculate the impact that this 28% increase in wages has on children's nutrition and education.<sup>13</sup> For example, as incomes increase because of fair trade, children are more likely to be adequately nourished. We estimate that the impact of this improved nutrition results in a 1.4 and 1.7 percent increase

in lifetime earnings for male and female children respectively. In addition, as incomes increase, parents invest more in education, children are more likely to stay in school, thereby increasing their annual wages by an additional 6.6% each year.<sup>14</sup>

As with the increased earnings of their parents, these additional future wages earned by children will also provide stimulus to rural economies so we apply a demand-side multiplier. Finally, as with the impact of the increased direct wages to the artisans themselves, we have applied purchasing power parity conversion ratios to account for differences in the cost of living and relative prices in the countries where World of Good sources products. It should also be noted that there will also be an intergenerational echo effect as the children of artisans have more resources to invest in their children, and their children in turn have more resources to invest in their children, and so on into the future.

## STRATEGIC ECONOMIC DEVELOPMENT PROJECTS IN SOURCING PARTNER COMMUNITIES

*“Cooperatives and producer associations provide a healthy alternative to large-scale manufacturing and sweatshops...By banding together, workers are able to access credit, reduce raw material costs and establish higher and more just prices for their products. Workers earn a greater return on their labor, and profits are distributed more equitably and often reinvested in community projects such as health clinics, child care, education and literacy training.”*

-- Fair Trade Federation Principles & Practices

While the ability to earn a fair, living wage is critical to the economic independence of rural communities worldwide, studies show that increased income alone does not provide enough collective capital to make sustainable progress. Many of our artisan communities lack basic infrastructure and access to essential social services such as healthcare, transportation, water treatment, and education.

To address this need for strategic economic development and social infrastructure in the communities where we source our products, World of Good Inc. has created the World of Good Development Organization. The Development Organization is uniquely positioned both to assess the needs of global artisan communities and to assemble the resources needed to meet those needs.

- World of Good's ongoing relationship with artisan groups gives the Development Organization first-hand insight into the needs of hundreds of communities.
- World of Good's relationships with mainstream retailers, other business partners and consumers provide opportunities to generate additional revenue to help fund local investments.

The Development Organization will begin targeted, discrete social and economic development investments in the second quarter of 2005. Projects will leverage the capacity of local NGO infrastructure and may include the following: building and/or renovating schools, contributing to libraries, digging wells for safe drinking water, and providing eye care clinics or vaccinations.

**UPCOMING INVESTMENTS THROUGH DIRECT GRANTS**

- Installation of water purification system for Laotian silk weavers cooperative
- Facility improvement project at a health clinic in the highlands of northern Guatemala
- Facility improvement project at an elementary school in Guatemala

**CURRENT PROMOTIONAL DIRECT BENEFIT PRODUCTS**

- The tsunami that devastated large regions of Sri Lanka also caused serious damage to the village of Sarvodaya, the home of one of our sourcing partner artisan cooperatives.
- In January, we introduced a "Tsunami Relief Mobile" produced in the Sarvodaya cooperative and will donate a portion of each sale directly to relief efforts.

Table 4. Social impact of Development Organization's economic development projects

	(x \$1,000)	2005	2006	2007	2008	2009	...	2014
Economic Development Investments	\$	64	\$ 222	\$ 1,109	\$ 2,283	\$ 3,382	...	\$ 8,876
Impact of Community Investment Multiplier	\$	98	\$ 340	\$ 1,697	\$ 3,493	\$ 5,174	...	\$ 13,581
Impact of Demand-side Multiplier	\$	138	\$ 476	\$ 2,376	\$ 4,891	\$ 7,244	...	\$ 38,232
Impact @ Purchasing Power Parity	\$	498	\$ 1,722	\$ 8,599	\$ 17,698	\$ 26,216	...	\$ 151,657
Discounted Cash Flows	\$	415	\$ 1,196	\$ 4,976	\$ 8,535	\$ 10,535	...	\$ 24,493
Present Value of Social Impact	\$	140,680						

For the calculation of the social impact of the Development Organization's economic development projects, we assume that Development Organization investments are allocated based on the percentage of World of Good, Inc. purchases from artisan



producers in those countries. As the specific projects are still to be determined, we assume that their primary value will be the additional employment and spending created in the artisan community.

Like increased artisan wages, Development Organization projects inject capital into local, rural economies, and produce a demand-side multiplier that increases GDP and government revenue. Money is thus available for investment, often by the collectives themselves, in further economic activity.

Social infrastructure projects have a positive impact beyond the increased wages to the people employed in implementing the project itself. We call this additional impact a “community investment multiplier” and apply it to the impact of Development Organization investments along with the demand-side multiplier. We estimate a multiplier of 1.54 to account for this additional benefit in local economies as a result of targeted social investments.<sup>15</sup>

In addition to receiving a percentage of World of Good Inc. profits, the Development Organization will receive revenue from foundation grants, individual donations, and retail partner contributions. In calculating the SROI, we include these contributions as additional investments in World of Good.

## NON-QUANTIFIABLE SOCIAL BENEFITS:

### Increasing Gender Equity

Increased income and employment for women increases empowerment and household decision-making authority for women in rural communities. Seventy percent of the artisans in World of Good sourcing partner collectives are women. Numerous studies have shown that when women have access to steady, fair income, rates of education, health, and well-being increase dramatically for their children.

### Preserving Traditional Art Forms

Stronger rural economies decrease pressure to migrate to cities and are likely to contribute to the preservation of traditional art forms and culture in rural artisan communities. The Fair Trade Federation Principles and Practices state that fair trade organizations encourage the production and development of products based on producers' cultural traditions adapted for Western markets. They seek to promote producers' artistic talents in a way that preserves cultural identity.

### Increasing Environmentally Sustainable Production

Fair Trade Organizations encourage producers to engage in environmentally friendly practices which manage and use local resources sustainably. Many NGOs and artisan collectives work directly with producers to develop products based on sustainable use of their natural resources, giving communities an incentive to preserve their natural environments for future generations. In addition, hand-crafted, artisan production methods are friendlier to the environment than industrial handicraft production. Also, for its operations in the United States, World of Good is working toward using 100% recycled and tree-free materials for labeling and packaging.

### Strengthening the Fair Trade Movement

World of Good Development Organization is well-positioned to build the Fair Trade Movement. The organization is making a focused effort to establish industry standards for handicraft and gift products, to develop tools to measure the impact of fair trade in producer communities, and to promote mainstream adoption and public policy initiatives in partnership with other industry leaders including Fair Trade Federation, TransFair, and fair trade producers and importers.

### Increasing Pressure on Large Retailers to Adopt Fair Trade Standards

We expect that increasing market share and presence of World of Good kiosks in popular retail spaces will generate pressure on other firms in the handicraft and gift market such as *Cost-Plus World Market* and *Pier 1 Imports* to operate differently.

### Creating High-Paying Jobs in the United States

While many of our US-based employees and agents would be engaged in similar activities and would enjoy similar benefits at other companies, World of Good is committed to paying starting hourly employees above the minimum wage and to making special efforts to hire from traditionally underrepresented minority communities in the United States.

### Changing Consumer Behavior

Finally, while our customers could purchase and use similar items from other sources, their purchases of World of Good products may make them more likely to purchase other fair-trade products and/or to be more civically engaged and discriminating consumers. We

expect consumer education to drive growth in the fair-trade handicraft movement in a similar manner to how consumers have pushed for growth in organic food products. Every World of Good product includes a hangtag that describes the product's unique story, including information about its source and materials used. In addition, each World of Good in-store display includes a "story of the month" which highlights a particular artisan group or product.

## SENSITIVITY ANALYSIS

We performed sensitivity analysis on several assumptions. Our analysis assumes that the percentage of World of Good purchases from source countries will remain constant. But it is difficult to predict how the share of World of Good products from different countries will vary overtime. Because purchasing power parity conversion factors are determined for each country, variation in the percentages of products sourced from different countries could have a significant impact on our SROI calculation. If we purchased all of our products from a country with the lowest purchasing power parity ratio, our SNPV and SIRR would drop to \$135 million and 552 percent respectively. Of course, our impact without factoring in purchasing power parity does not depend on this assumption.

We also assume that 85% of goods that artisans produce/sell to World of Good would not have been made without World of Good based on phone calls with 20 of our sourcing partners. When we adjust this assumption to 65 percent or 45 percent, our SNPV and SIRR change to \$280.7 million and 1781 percent, and \$252.1 million and 1,606 percent respectively.

Another potentially sensitive, but difficult to test, assumption is our contention that artisans from different countries or within different collectives receive the same added social benefits of selling to World of Good as opposed to selling through other channels. We expect that further research by World of Good Development Organization and others will help us understand more about how our impact compares to other potential distributors of artisan handicraft products.

## TRACKING PROGRESS TOWARD SOCIAL OUTCOMES

The biggest challenge for social impact analysis of World of Good's operations is the scope and diversity of the company's footprint in communities all over the developing world. Although many studies have been done and more are underway to assess the impact of fair trade initiatives on poverty and the well being of producers and their families,<sup>16</sup> we believe that there is much work to be done within the fair trade movement to develop social impact metrics and processes for evaluating fair trade's impact on artisan producers.

Today, World of Good relies on the trust and the reputation of our sourcing partner artisan collectives to ensure that our products meet the standards for fair trade. As mentioned earlier, the Development Organization will bring together key players in the industry to develop Fair Trade standards for handicrafts and gift products as well as to develop social impact metrics for Fair Trade organizations. We expect the Development Organization to develop (or partner with) the research capacity to directly study and track outcomes within our sourcing partner communities as well as control groups.

Further development of metrics and tools for social impact analysis is essential as we seek to assess how we can improve/increase our impact, and understand how effective our activities are at reaching the world's most marginalized producers.



## APPENDICES

### APPENDIX A: SOCIAL IMPACT ANALYSIS METHODOLOGY, ASSUMPTIONS, SOURCES

*“Fair Trade is a growing, international movement which ensures that producers in poor countries get a fair deal. This means a fair price for their goods (one that covers the cost of production and guarantees a living income), long-term contracts which provide real security; and for many, support to gain the knowledge and skills that they need to develop their businesses and increase sales.”*

– Oxfam’s “Make Trade Fair” website

While we believe that the social impact analysis included in the body of our business plan provides a comprehensive assessment of World of Good’s social impact in developing countries around the world, this appendix provides further details about our methodology, assumptions, and sources for readers looking to learn more about our approach.

Appendix A includes the following sections:

1. Note on demand-side multipliers
2. Note on purchasing power parity
3. Note on the UNDP’s Human Development Index
4. Note on number of households impacted by World of Good
5. Note on impacts of increased income on health & education
6. Note on multiplier effects of economic development investments

#### 1. NOTE ON DEMAND-SIDE MULTIPLIERS

By creating more demand for artisan products and increasing the number of artisans employed, World of Good stimulates economic growth in rural communities. For example, suppose that a collective is able to employ 100 new artisans because of its access to World of Good’s distribution network.

These 100 artisans now receive increased wages and use those wages to purchase goods and services. This increased demand for goods and services would further stimulate economic growth and even more jobs would be created in the community. Workers in these new jobs would receive wages which would further increase demand ... and the cycle continues. An initial stimulus has been multiplied providing a bigger boost to the local economy.

Many factors such as region, sector, tax rates, and propensity to purchase imports impact the magnitude of these demand-side multipliers. For example, if people spend their additional income on goods and services imported from other communities or countries, this demand is not passed on in the form of extra spending on locally produced output. Rural communities often have a higher propensity (need) to purchase goods and services produced outside of the region so this demand-side multiplier effect is not as large as it might be in urban areas.<sup>17</sup> We found multipliers that ranged from 1.5 to 2.5 depending on community size. To be conservative, we assume a 1.4 demand-side multiplier for calculating the full social impact of the increased wages paid to artisans as a result of World of Good activities.<sup>18</sup>

#### 2. NOTE ON PURCHASING POWER PARITY

Because exchange rates do not always reflect international differences in the cost of living, our impact calculations have been adjusted to take into account relative prices and the impact that the additional wages will have on artisans’ purchasing power in their local context.

Market exchange rates are determined by supply and demand of imports and exports. For example, importers into India need dollars and euros which are supplied by exporters selling Indian goods in the world market. The market exchange rate ensures that goods that are traded into and out of India have prices in rupees that, when converted at the market exchange rate, are comparable to the world prices of those goods in dollars.

But many goods that are important to poor people, including much of their food, all of their housing, and the services that they buy, are neither imported nor exported. Land, housing, and services that use low-cost Indian labor (remember that India is poor) would be a

great bargain in New York, but that does nothing to raise their prices, because they are in India, not New York, and it is impossible to ship them. The result is that an American dollar, converted into rupees at the market exchange rate, will buy a great deal more than a dollar's worth of goods in India.<sup>19</sup>

In order to measure the “on the ground” impact of World of Good’s activities it is necessary to use *purchasing power parity* (PPP) exchange rates which are designed to convert currencies in a way that preserves purchasing power within the local context.<sup>20</sup>

### 3. NOTE ON THE HUMAN DEVELOPMENT INDEX

The United Nations Development Program uses the Human Development Index (HDI) to measure the effects and costs of poverty.<sup>21</sup> The HDI is an unweighted average (between 0 and 1) that measures relative distance from the optimum of three different dimensions of quality of life, notably longevity, education and access to resources. The HDI uses “real per capita GDP in purchasing power parity dollars to represent access to resources needed for a decent standard of living.”

The inclusion of “real per capita GDP in purchasing power parity” as one of three components of the UNDP’s Human Development Index speaks to the preeminent importance of income level as a contributor to quality of life in developing countries. Poor families are forced to make choices between paying rent and buying food or medicine. Adequate income allows families to stay on their land, keep their kids in school, improve family diet and nutrition and invest in high-quality, environmentally sustainable production processes.

### 4. NOTE ON NUMBER OF HOUSEHOLDS IMPACTED BY WORLD OF GOOD

After data-gathering phone calls with 20 of our suppliers, we made the following assumptions to calculate the number of artisan households impacted by World of Good:

- the average item purchased by World of Good takes approximately 4 hours to produce
- artisans work on handicraft production 6 hours per day
- the average work year consists of 250 days of production
- the average dollar value per unit received by an artisan is \$3 and that 40 percent of that covers material costs
- 30 percent of the artisans we source from are men, 70 percent are women
- 85 percent of artisan collective sales to World of Good would not have been made without World of Good’s brand distribution channel to the US market

We calculate the number of households impacted each year by multiplying the number items purchased by World of Good each year by the number of hours each item took to produce, and then dividing by the number of production hours in a day and the number of production days in a year. By this methodology, we estimate that World of Good will impact 250 households in 2005 and grow to impact more than 37,000 households by the year 2014. We also use these assumptions to calculate average artisan earnings per day of \$3.08 over a 365 day year. Based on data from the United Nations Development Organization, we assume that each artisan household has an average of 3.5 children.<sup>11</sup>

### 5. NOTE ON IMPACTS OF INCREASED INCOME ON NUTRITION & EDUCATION

In calculating the effects that increased income has on nutrition and education, we conducted a broad literature review of the research into the effects of anti-poverty programs around the world. This note provides additional details of the sources for our assumptions in calculating this portion of the social return on an investment in World of Good.

#### Nutrition:

A study of the *Progresa* anti-poverty program in Mexico found that a 30% increase in income lead to a significant improvement in the health of both children and adults. Specifically, children had about a 23 percent reduction in the incidence of illness, a 1 to 4 percent increase in height, and an 18 percent reduction in anemia.<sup>22</sup> *Progresa* linked receipt of extra income to attending prenatal and well-baby health clinic visits, and also distributed a “toddler health shake” for young children. Thus, the effect of increased income alone must be smaller than the total effect of the *Progresa* program. Based on these findings, we make a conservative assumption that, on average, a 30% increase in income leads to a 1 percent increase in height for our calculation of the impact of better nutrition.

Many studies have documented the relationship between adult height and wages in developing countries:

- One study by the World Health Organization found that an additional centimeter in adult height is associated with wages being 1.5 percent higher for men and 1.7 percent higher for women in Ghana, and 1.4 and 1.7 percent higher in Brazil, respectively.<sup>23</sup>
- Another study of workers in rural Brazil reported that a 1 percent increase in height (associated with improved nutrition) leads to a 2-2.4 percent increase in wages or earnings.

📍 A third study, found that around the world a 1 percent increase in height was associated with a 5 percent increase in earnings.<sup>24</sup>

Because World of Good sources products from over 20 developing nations it is difficult to find a proxy for each location. In addition, these studies use height as a proxy for several social advantages including nutrition, parental education, and social networks. We chose the data from Brazil collected by the World Health Organization – the most conservative estimate of this impact – and assumed that, on average, a 1 percent increase in height is associated with a 1.4 percent and 1.7 percent increase in lifetime earnings for men and women respectively.

#### Education:

Another study of *Progresa* in Mexico found that a 20 percent increase in income per family led to an increase in 0.66 years of schooling per child over an eight year time period starting at age six.<sup>25</sup> Based on this study, we assume that an increase in household income of at least 20 percent, leads to an increase in 0.66 years of schooling per child in the households that World of Good impacts over the 10 year horizon of our social impact analysis.

Next, we cite studies that document the relationship between additional years of schooling and future earnings for children in rural communities in developing countries. On average, researchers estimate that, when opportunities are available for educated workers, earnings can increase on average by 10 percent for each additional year of schooling.<sup>26</sup> We use this 10 percent increase in future earnings for each additional year of schooling as our assumption in calculating the SROI.

#### 6. NOTE ON MULTIPLIER EFFECTS OF ECONOMIC DEVELOPMENT INVESTMENTS

In calculating the impact of World of Good Development Organization economic development and social infrastructure investments, we applied a “community investment multiplier” along with a demand-side multiplier. In addition to demand-side multiplier effects of the increased wages to the people employed by the economic development project, we found studies which reported multiplier effects on local economies as a result of targeted social investments.

For example, a study of the impacts of social investments in Ghana found that an exogenous injection of capital into the health and education sector had an impact multiplier of 1.14. The same study also found that injections into rural economies tend to do more to alleviate poverty than growth in industrial or urban economies. Other multipliers for diverse economic development projects ranged from 1.83 for an irrigation project in Malaysia<sup>27</sup>, 3.0 for a series of dams and reservoirs in Brazil, and 1.62 for investment in the cocoa industry in Ghana.<sup>28</sup>

Since World of Good Development Organization will make investments in various kinds of projects in many different countries, we use a multiplier of 1.53 to calculate the social returns on its economic development and social infrastructure investments. This represents the average of the 3 lowest multipliers of this kind that we found through our research and seems to be a conservative estimate of the likely multiplier.

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<sup>1</sup> The United Nations Development Program uses “real per capita GDP in purchasing power parity dollars to represent access to resources needed for a decent standard of living.”

<sup>2</sup> As in the financial assumptions, we use a 15% discount rate. Since World of Good’s sales depend almost entirely on the US business and consumer environment, and wages to artisans depend on World of Good sales, we feel that this rate is justified.

<sup>3</sup> Based on telephone interviews with 20 of our suppliers.

<sup>4</sup> See note on demand-side multipliers in Appendix A.

<sup>5</sup> See note on purchasing power parity in Appendix A.

<sup>6</sup> See note on number of households impacted by World of Good in Appendix A.

<sup>7</sup> Extreme poverty and poverty are defined by the UNDP and World Bank as living on less than \$1 per day or on less than \$2 per day respectively. We estimate that the average artisan impacted by World of Good earns \$3.08 per day. See note on number of households impacted by World of Good in Appendix A.

<sup>8</sup> Duflo, Esther. [http://econ-www.mit.edu/faculty/download\\_pdf.php?id=439](http://econ-www.mit.edu/faculty/download_pdf.php?id=439)

<sup>9</sup> Pritchett, Lant and Lawrence H. Summers. “Wealthier is Healthier.” <http://www.worldbank.org/research/growth/absprsu9.htm>

<sup>10</sup> Hopkins, Raul. 2000. “Impact Assessment Study of Oxfam Fair Trade.” International Fund for Agricultural Development.

<sup>11</sup> The United Nations Development Program collects data on fertility rates around the world. We calculated a weighted average fertility rate of 3.5 children per woman based on the percentage of World of Good purchases from each country. *Human Development Report*, United Nations Development Program, 2004. <http://hdr.undp.org/statistics/data/>

<sup>12</sup> Again, we use the same discount rate of 15% as in the financial calculations because all of the risk associated with our social impact depends on the success of the business.

<sup>13</sup> This analysis applies only to the 28% gain in artisan wages over their next best alternative based on country minimum and non-fair trade wage rates. We have not accounted for the additional multiplier that would occur for families where the next best alternative is unemployment and therefore their increase in income is closer to 100%.

<sup>14</sup> See note on impacts of increased income on nutrition & education in Appendix A.

<sup>15</sup> See note on multiplier effects of economic development investments in Appendix A.

<sup>16</sup> Traidcraft announced in its 2004 Social Accounts that it was collaborating with Durham University on a three-year £50,000 project “to assess the impact of Fair Trade initiatives on the livelihoods of producers and the wider community (particularly in Bangladesh).”

<sup>17</sup> David Levine, Professor, University of California, Walter A. Haas School of Business. <http://faculty.haas.berkeley.edu/levine/>

<sup>18</sup> Hughes, David. 2003. “Policy Uses of Economic Multiplier and Impact Analysis.” [http://www.choicesmagazine.org/2003-2/2003-2-06\\_print.htm](http://www.choicesmagazine.org/2003-2/2003-2-06_print.htm).

<sup>19</sup> Purchasing power parity explanation adapted from Deaton, Angus. 2003. “Measuring poverty.” Research Program in Development Studies, Princeton University. [http://www.wws.princeton.edu/%7Erpds/downloads/deaton\\_povertymeasured.pdf](http://www.wws.princeton.edu/%7Erpds/downloads/deaton_povertymeasured.pdf)

<sup>20</sup> “Relative prices and exchange rates.” World Development Index, World Bank, 2004.

[http://siteresources.worldbank.org/ICPINT/Resources/Table5\\_7.pdf](http://siteresources.worldbank.org/ICPINT/Resources/Table5_7.pdf)

<sup>21</sup> *Human Development Report*, United Nations Development Program, 2004. <http://hdr.undp.org/statistics/data/>

<sup>22</sup> Gertler, Paul J. and Simone Boyce. “An Experiment in Incentive-Based Welfare: The Impact of PROGESA on Health in Mexico.” UC Berkeley, 2001. <http://repec.org/res2003/Gertler.pdf>

<sup>23</sup> Shultz, T. Paul. 2002. “Wage Gains Associated with Height as a form of Health Human Capital.” Yale University, Economic Growth Center.

[http://www.econ.yale.edu/growth\\_pdf/cdp841.pdf](http://www.econ.yale.edu/growth_pdf/cdp841.pdf)

<sup>24</sup> Thomas, Duncan and Elizabeth Frankenberger. 2002. “Health, nutrition and prosperity: a microeconomic perspective” World Health Organization.

<http://chd.ucla.edu/dthomas/ppr/whobull-2002.pdf>

<sup>25</sup> Behrman, Jere R., Segupta, Pilali and Todd, Petra. 2001. “Progressing Through Progresa: An Impact Assessment of a School Subsidy Experiment.” Pier Working Paper No. 01-033. <http://ssrn.com/abstract=286295>

<sup>26</sup> Psacharopoulos, George. 1994. “Returns to Investment in Education: A Global Update.” *World Development* 22(9): 1325-1343. Cited in: Case 2001. [http://econ.worldbank.org/files/18081\\_wps2881.pdf](http://econ.worldbank.org/files/18081_wps2881.pdf)

Also see: Legovini, Arianna and Ferdinando Regalia. 2001. “Targeted Human Development Programs: Investing in the Next Generation.” Inter-American Development Bank, Sustainable Development Dept. Best Practices Working Paper No. POV-110. <http://ssrn.com/abstract=292123>

<sup>27</sup> *Multiplier Effects and Income Distribution Impacts of Dams: Methodology Issues and Preliminary Results*, Ramesh Bhatia, Monica Scatasta, and Rita Cestti, The Third World Water Forum, Kyoto, Japan, 2003. <http://www.worldbank.org/watsan/waterweek2003/Presentations/Session%2013%20-%20Economic%20&%20Social%20Assessment%20of%20WM%20in%20Irrigation/MultiplierPaper-Scatasta&Cestti.pdf>

<sup>28</sup> *Social Accounting Matrices and SAM-based Multiplier Analysis*, Jeffery Round, University of Warwick, United Kingdom, 2002.

[http://poverty.worldbank.org/files/14017\\_chapter14.pdf](http://poverty.worldbank.org/files/14017_chapter14.pdf)