

What Can Economics Glean from the Biblical Gleaning Principle:
An economic analysis on gleaning

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An economic framework provides a base of understanding of the natural world and how people act in accordance with this natural world. With an economic framework one can approach any issue pertaining to the natural world and the individuals acting within in it to analyze this. One area in which my economic framework will be applied is with the Old Testament gleaning principle. The gleaning principle is important because first, the principle was given as a commandment to the ancient Israelites to stand out and be set apart from the other tribes and nations. Second, the principle proposes private property to be made common to provide for the poor, those lacking the daily necessities of life, as well as the outcasts. Finally, the principle worked, the principle provided for those in need and even benefitted the landowners. This principle seems counterintuitive to those who understand the fundamentals of economics for private property is much more efficient and effective than common property. The goal of this paper is to respond to this claim while exploring the history of this principle, analyzing the principle, and exposing the principle to its core examining the social justice implications and the applications it contains.

In order to achieve the goals of this paper, the paper will be categorized into three main sections. The first section of this paper will explore the Old Testament history of the gleaning principle. Within the Old Testament there are four notable passages that discuss the gleaning principle in Exodus 23:10-11, Leviticus 19:9-10, Deuteronomy 24:19-22, and Ruth 2:2-7. This section will expound on the history and the process of gleaning. The next section will analyze the gleaning principle discussing the economic principles involved. The most important economic principle involved is private property which

allows the process of gleaning to overcome the tragedy of the commons. A systematic analysis will prove the importance of private property and ownership with stipulations which work concurrently avoiding the tragedy of the commons. The last section will advance the analysis and move to apply the core structure of this ancient agrarian principle to the modern world. A discussion of existing businesses or organizations that mirror the gleaning principle will aid in this application process. At the end of this paper, the sections will mend together and establish a tangible argument portraying that the Old Testament gleaning principle offers a certain structure that improves social justice efforts such as providing the poor an opportunity for the poor to labor for provisions such as food.

The structure within the gleaning principle is at the heart of this paper. The gleaning principle at its core suggests individuals sacrifice a small sect of their privately owned goods or businesses and offer an opportunity for the poor to come and work to meet their daily needs with food or even shelter. This structure provides opportunities for social justice applications. The social justice applications restore opportunities for those in need such that the poor have an opportunity to come and work in return for daily necessities such as food or even shelter. An important part of restoring opportunities for the poor to come and work for food begins in the creation of opportunities. Due to the nature of providing opportunities to the poor for work, this paper will gravitate more towards social justice instead of towards social welfare.

The paper will not be in much favor of a welfare system because this is not as efficient or beneficial, however it is critical that people are given aid to meet their daily

needs of food and shelter but the process of providing aid is more important. A welfare system is a type of government support intended to provide for every member in society such that none is without any basic need (food or shelter). This contradicts the gleaning principle because the gleaning principle suggests that the poor need to come and labor for the reward of food and shelter. If the poor have an opportunity to come and work for food or shelter their needs are fully dependent upon their labor and thus, they will work harder, and the reward will be greater. In a social welfare system, it provides each member of society with the necessities of life, which is a good thing, however this does not incentivize the poor to work since food and shelter is provided to them without any exertion of labor.

Although this paper covers a biblical idea, this is not a religious paper. The biblical concept provides further insight into an efficient and effective means to provide for the poor in which benefits those who provide an opportunity to the poor as well as the poor. The gleaning principle provides a unique aspect in providing for the poor since it is not merely giving the poor what they need but again providing an opportunity for the poor to work for what they need. This is the line of thought that will be addressed in this paper through the case study of the biblical idea of gleaning. Religious people and thought can take this principle further and apply it within that context, however the goal is not to appeal to any religious idea but simply analyze the principle for what it is and examine how it can contribute to the literature on providing for the poor with opportunities through the use of private property.

I. Historical Analysis of the Gleaning Principle

It is necessary to provide a descriptive historical account of the gleaning principle before any other discussion begins. This historical account will highlight the culture at the time of the commandment to the ancient Israelites providing further insight into the functionality of this commandment. I will look at both the divine law given to the Israelites as well as explain and expound on what the gleaning principle entailed. Another important aspect of this historical account will expose the skeleton of the gleaning principle which will provide more opportunities to expand and apply this principle to the modern world. In this analysis, four biblical passages will provide a strong base for a descriptive analysis of this principle which include Exodus, Leviticus, Deuteronomy, and Ruth (with a focus on Leviticus and Deuteronomy).

In Leviticus 19:1-10, Moses describes the principle of gleaning and presents the command to the Israelites saying, “when you reap the harvest of your land, you shall not reap your field right up to its edge, neither shall you gather the gleanings after your harvest... You shall leave them for the poor and for the sojourner” (Leviticus 19: 9-10). This command was apart of the divine law that Moses presented as a descriptive claim before the Israelites which suggests two remarks. First, this descriptive claim provides incentive and motivation for the Israelite landowners to obey in an act of service to the Lord their God. Second, this command offers a unique structure to provide for the needy.

Since the gleaning principle was given as a commandment to the ancient Israelites this explains why they would be eager to participate in upholding the gleaning principle. In the *International Bible Encyclopedia*, Bromiley expands on this principle explaining that the Mosaic law stipulated that the landowners ought to allow those in need to gather

the grain that remained after the hired reapers had made a single sweep through the fields (Bromiley 1979, 477). The Mosaic law, which was a part of the divine law, also prohibited the landowners to harvest up to the edges and corners of their field, stripping the fields bare (Bromiley 1979, 477). The leftovers and the crop left alone were set apart for the poor, foreigners, and outcasts of society in that they would be allowed to come in and reap the remaining crops. There are even cases of the landowners hiring the poor to aid in gleaning the field (Bromiley 1979, 477). The gleaning principle thus was bestowed upon the Israelites as another commandment in which they could love and serve the Lord by fulfilling his command. This also provided incentive for the landowner to uphold the law as well as a benefit such that the landowner received gratitude in providing food for the needy.

The command in Leviticus also provides an interesting structure in providing for the needy. Bob Stallman provides insight into this principle stating that since the landowner is not to pick up the leftovers but leave them for the poor, the poor then are fully dependent upon their own labor to receive food (Stallman, 2013). Dependence upon the poor's own labor is a critical aspect to the gleaning principle in the sense that it is unique. The first instinct in providing for the poor is simply to give out of abundance to the poor either from the government or from individuals. The incentive structure is important for in this example the incentive for the poor is to wait for handouts. In the gleaning principle the incentive structure promotes the poor to be proactive, to work to provide for themselves. This provides the needed distinction between charity and the

gleaning principle. Charity provides for the poor regardless of any effort put forth but gleaning incentivizes the poor to work to provide for himself.

The gleaning principle provides benefits to those in need but also proves to be beneficial for the landowners as well. It was stated earlier that one benefit of allowing the poor to glean from the field of the landowner is that the landowner can serve the Lord through this process, and he can also receive gratitude in providing for the poor. However, another benefit is providing the landowner with free labor such that the poor who come and glean the leftovers do so free of charge and thus the landowner does not need to pay his servants to go through the field a second time (Tidball, 2005). This is not a pure benefit since the landowner does not gain from the poor gleaning the field because they glean to consume, however this provides the landowner with another incentive to provide an opportunity for the poor to come and work for food.

The passage in Deuteronomy is similar to the one in Leviticus for Moses states, “when you reap your harvest in your field and forget a sheaf in the field, you shall not go back to get it. It shall be for the sojourner” (Deuteronomy 24:19). Moses again restates the descriptive claim stating that the Israelites ought to provide for those in need. Duane Garrett explains that this passage in Deuteronomy requires landowners to provide productive assets and use them for the benefit of those in dire need (Garrett, 2013). Garrett states further that this principle portrays God’s desire for those to be open with their resources while remaining good stewards and thus still taking care of the land that has been provided by God (Garrett, 2013). This is an important caveat and Garrett notices something unique to gleaning, in this principle the landowner’s private property is made

public to those in need, however it is not abused. The land was not abused because the law did not propose the private land to be made public but rather the landowners allow the poor or needy to come and access their private land. The law also inhibited those in need from carting off as much food as possible but rather limited through stipulations such as the poor could only take what was needed (Garrett, 2013).

II. The Economic Principles Contained in Gleaning

The gleaning principle suggests an interesting economic idea in that the private land ought to be made public for the use of those in need. At the beginning of my research this interested me and the question I started with was what can the gleaning principle provide to further the discussion of the tragedy of the commons? However, through the research process the question changed to how did the gleaning principle overcome the tragedy of the commons? The discussion on the tragedy of the commons diverged from what was expected but the discussion will be addressed as the gleaning principle contains the aspect that private land would be made common. The principle avoids the tragedy through rules and stipulations which will be explained further. Another important economic principle that will be addressed is the idea of private property and ownership as this plays an important role in the gleaning principle. Finally, the economics of redistribution will be addressed in a brief discussion on the inefficiencies of government redistributions as well as the efficiencies of private creation of opportunities to provide for the poor.

Garrett Hardin has had a great influence on the economic world with one of the most cited scientific papers in the 20th century called “The Tragedy of the Commons” (Ostrom et al 2002, 5). Hardin saw a problem with common property and explicated on it in his transformational article. One of his examples in this article which experienced what he called the tragedy of the commons was the example of a herdsman herding on a pasture open to all (Hardin 1968, 1244). Since all herdsman desire to maximize his own gain and thus allow as much sheep as he owns to graze on the pasture hence is the tragedy (Hardin 1968). Each individual herdsman would not limit the number of sheep to graze the field, however if every herdsman exhibited this maximizing behavior, then with many sheep grazing the same pasture, overgrazing is inevitable. Hardin states it this way, “each man is locked into a system that compels him to increase his herd without limit – in a world that is limited” (Hardin 1968). This is tragic.

The paper does not halt at the description and analysis of the problem, but rather Hardin provides a solution to this tragedy. The solution is contained in one word: responsibility (Hardin 1968, 1247). Social arrangements that call for responsibility have an ability to coerce people (Hardin 1968). The most effective way of protecting a public area from the tragedy of the commons is through creating social arrangements that instill responsibility in the individuals. The common area evades the tragedy of the commons since responsibility evokes cooperation. When individuals are responsible for their behavior the resulting behavior is cooperative of the given rules and stipulations. In the example of the herdsman, the pasture was overgrazed because the herdsman lacked responsibility. If the herdsman established a social arrangement that instilled

responsibility, such as limiting the number of sheep to graze on the pasture, the pasture would evade the tragedies of the commons.

Garrett Hardin provided a thoughtful analysis and kickstarted the tragedy of the commons' literature with this paper. Hardin published his paper amidst the bare literature on the commons. Before "The Tragedy of the Commons" was published the word "commons" was only used 17 times throughout the academic literature until another important economist attributed to the bare literature (Ostrom et al. 2002, 6). Elinor Ostrom was captivated by Hardin's paper and dedicated most of her life to the topic of the tragedy of the commons furthering Hardin's research. Ostrom, with the help of Thomas Dietz, Nives Dolsak, and Paul C. Stern, provide a beneficial discussion on the terms associated with the tragedy of the commons' literature.

In *The Drama of the Commons*, Ostrom et al. systematically define terms associated with the tragedy of the commons. One important term in the literature is "open-access" which is used in reference to property that suffers from the tragedy of the commons. Hardin provides two solutions to overcome this problem: through a centralized government or through private property open to the public with rules and social arrangements (Ostrom et al. 2002, 8). The rules and social arrangements that governed this private land consisted of "communication, trust, the anticipation of future interactions, and the ability to build agreements and rules [which can] control behavior well enough to prevent tragedy" (Ostrom et al. 2002, 5). Social arrangements and rules prove to be effective and overcome the tragedy of the commons. For example, there are

village communities that exist in which they facilitate their agricultural fields through private property and rules with social arrangements (Ostrom et al. 2002, 8).

Ostrom et al. provide a needed distinction between the two terms common property and common pool resources. Common property is a term that does not reflect the resource itself but implies management established by man. Common pool resources are resources in which it is difficult to exclude individuals from using (Ostrom et al. 17). Common property resources do not always succumb to the tragedy of the commons, but rather common pool resources are more easily overcome by the tragedy of the commons. Common pool resources suffer from the tragedy of the commons because it is more difficult to restrict people from accessing the resource. Since it is more difficult and costs more to exclude individuals from accessing the resource, the common-pool resource becomes degraded (Ostrom et al. 2002, 18).

Ostrom et al discuss two important caveats that pertain to the terms within the tragedy of the commons' literature. These two important caveats are rivalrous of consumption and institutions. Resources tend to be rivalrous because if an individual uses the resource this limits another individual from using that same resource. Common-pool resources are deemed rivalrous in consumption and thus are subtractable, that is taken away from another, which only aids in the resources becoming overcrowded, overharvested, and even destroyed (Ostrom et al. 2002, 19). This scenario is depicted in Hardin's example concerning the herdsmen and the pasture. The pasture is a rivalrous good of consumption for if a herdsman takes his sheep to one area to graze on the pasture this limits the other herdsmen from grazing on that same piece of the pasture. Since the

pasture is a rivalrous good of consumption, this incentivizes the herdsmen to maximize the number of sheep they have on that pasture which results in overgrazing the pasture negatively affecting all the herdsmen grazing in that field.

The other caveat functions as a solution to the previous one. Institutions are important in the discussion of the tragedy of the commons for institutions offer stipulations to inhibit resources from experiencing the tragedy of the commons. Institutions are also known as rules that people establish to clarify what is and is not allowed relative to a specific resource. These rules or stipulations help define who has access, how much one can access, and finally how much of the resource can be harvested (Ostrom et al. 2002, 21). Institutions or rules further Hardin's research because if the institutions were applied in Hardin's example, these rules would thwart the herdsmen from overgrazing the pasture. With rules in place each herdsman would be limited to who was allowed to graze on the pasture, the number of sheep allowed to graze, and the amount of land they were allowed to graze. Through these limits the possibility of overgrazing the pasture would diminish if the rules were cheap and easy to enforce.

The decomposition of the terms within the commons' literature provided a beneficial analysis into the tragedy of the commons which provided further distinctions and potential ways to overcome the tragedy. Ostrom, Dietz, and Stern published a journal article constructing a greater understanding of the commons and ways to overcome the tragedy of the commons. One of the claims made in the article "The Struggle to Govern the Commons", is that in an absence of institutions comes a greater possibility for the tragedy of the commons to occur (Dietz et al. 2003, 1907). A couple of principles make it

easier to establish these institutions which inhibit the tragedy of the commons from occurring on specific resources. Ostrom, Dietz, and Stern state these five principles as such: first resources are easy and cheap to monitor. Second, changes in the resources must be moderate. Third, communities that use this resource exist with communication among the members establishing trust which lowers the cost of the enforcement of the rules. Fourth, outsiders can be excluded from the resource at a low cost. Finally, those who use the resource support monitoring and enforcing efforts (Dietz et al. 2003, 1907). These are the five principles which make the process of governing open access resources much easier. The third and fourth principle will especially be beneficial in the discussion of how the gleaning principle overcame the tragedy of the commons.

The commons' literature sprouted from Garrett Hardin's paper on the tragedy of the commons which grew with Ostrom, Dietz, and Stern and now the literature is but a vast forest. Ostrom, Dietz, and Stern contributed to paving the way through the analysis and distinction of the terms that were contained in the commons' literature. This analysis was needed because it furthered the discussion but also contributed to providing some solutions to overcome the tragedy of the commons. The prevailing solution to the tragedy of the commons is contained in the word "responsibility" as Hardin stated, but narrowly in the effective governance of rules and institutions. This discussion and analysis prove to be especially helpful for the goal of this paper in its application to the biblical gleaning principle which contains a case study on what seems to be common property. The further definition and distinction of terms within the commons will be helpful in addressing accurately the state and condition of the gleaning principle.

III. The Gleaning Principle and the Commons

The Old Testament gleaning principle encounters the commons in the sense that the Israelite landowners were required to make their land public, allowing the poor and outcasts to reap from the leftovers in the fields. This gleaning practice proved to be efficient and effective with limited negative effects in the literature. The negative effects were limited due to the nature of the principle which did not construe the land to be made as an open access resource but remained private property coupled with rules and institutions. This section will contain an analysis of the gleaning principle relative to the commons' literature as well as an application of the previous discussion portraying how the gleaning principle is not an open access resource susceptible to the tragedy of the commons.

At the beginning of the research process, the gleaning principle seemed like an open access resource and thus susceptible to the tragedy of the commons, however later research demonstrated these assumptions to be wrong. Daniel Bromiley states that people often see open access situations and improperly assume it is a common property resource which it is not. There is a critical difference between an open access resource and a common property resource in that there is no property in an open access resource, only an opportunity to use that resource (Bromley 1992, 11). The divine law requiring the Israelites to uphold this gleaning principle explicitly states that the landowners ought to have full ownership over their private property but allow the outcasts and needy to glean from the leftovers. It is clear here that the gleaning principle is not to be confused or improperly assumed that the landowners' land is an open access resource for the outcasts

and needy, but rather a common property resource managed by man. The common property resource, the landowners' fields, remain to be private property open to the outcasts and the needy through rules and stipulations.

Since the landowners' fields are explicitly stated to remain as private property, this is one crucial way the gleaning principle overcomes the tragedy of the commons. This is an important fact that keeps the land free from suffering from the tragedy of the commons because the landowners can instill rules or stipulations while allowing the needy to come and reap from the leftovers from their crops. One rule stipulated that the needy could not reap as much as they wanted from the fields but rather could only reap that which they needed, keeping the field from being over harvested, trampled, or destroyed. This stipulation was kept between the landowner and the needy because of the nature of the community. As Ostrom, Dietz, and Stern stated in their third principle, if a community's communication is greater and they have access to a common resource, there is a greater sense of trust which hedges against the tragedies of the common.

Through the means of private property with rules and stipulations the gleaning principle was able to overcome the tragedy of the commons. Not only is the principle able to overcome the tragedy but rather the principle would be described as unable to succumb to the tragedy of the commons. The gleaning principle illustrates common property through which the landowners were the managers of the property and thus restricted who had access to the field, how much of the field, and amount of crop they could access. Common property systems are capable of stipulating situations in which the tragedy of the commons cannot occur, however open-access property is the property

system in which it is hard to exclude members from using the resource and thus susceptible to the tragedy of the commons. The Old Testament gleaning principle is not an open-access system but rather a common property system managed through private ownership along with a strong sense of community resulting in trust in upholding these rules.

This greater analysis of the gleaning principle suggests that there is more involved behind the principle. The principle contains a unique idea with an interesting structure encouraging individuals to provide care for those in need, as well as providing incentives to those in need. The next section of this paper will examine the structural framework of the principle looking to modern applications of the caveats involved with this principle. Since the gleaning principle avoided the tragedy of the commons, a core examination will provide further insight into a more efficient and sustainable way to provide for those in need. After an analysis and examination of the framework of the gleaning principle, the next line of thought will address the question of how the framework is applied in modern examples.

IV. Structural Framework of the Gleaning Principle

At the beginning of the paper the gleaning principle proved to be efficient and effective in the historical setting of the Old Testament in providing for the outcasts and those in need with a strong incentive structure. Later in the paper the principle was explicated that it could not be subject to the tragedy of the commons due to the nature of the land being private property made common through the coupling of easily enforceable

rules as well as trust built into the community. Now the aim of the paper is to extract the framework of the principle and examine how the principle could be applied to a modern rendition of the gleaning principle. This is important because if the gleaning principle was efficient and effective, then a modern application of the principle could aid in making provisions for those in need more efficient and effective as well.

Some of the modern companies or organizations that will be examined are unique, however they all exhibit pieces from the framework of the gleaning principle. The core of the gleaning principle begins with the goal, which is to provide those whom society has cast away with welfare, which is dependent upon the labor exerted by those in need. The last part of the goal is crucial to the structure of this principle. A welfare system in which the needy come and exert labor to receive the daily necessities is uncommon, however this fuels incentive for the needy to come and work for food. When the needy come and labor for food, this allows them to restore dignity to work and allows them to take a step towards self-sufficiency. This is the essence of both the effectiveness and efficiency for those in need are working, that is supplying payment in labor hours, to receive food. Also, both parties benefit in this exchange for the needy offers labor to the one providing an opportunity and the needy receives food in return. The gleaning principle's framework consists of an individual creating an opportunity for those in need to provide work, which restores dignity to work, in exchange for the daily necessities' dependent upon their own labor for.

Five modern renditions of the gleaning principle are especially important in that the structure of these companies or organizations mirror the gleaning framework. The

first example is the Kibbutz which is a Hebrew community dedicated to aid and social justice. Kibbutz is a communal settlement designed for those in need of food and shelter. The settlement consists of members in which a leader is designated, and the individuals are assigned a specific duty to remain part of the community which provides the food and shelter for the members (“The Kibbutz & Moshav: History & Overview”). Some of the tasks assigned to the members of the kibbutz are agricultural duties, poultry-packaging, and even computer data compilation. This settlement works effectively and efficiently because it is based on voluntary participation and thus those who participate are in dire need and thus assume responsibility within the community and are dependent upon their own labor for the provisions.

The Kibbutz is a great example mirroring the gleaning principle in a couple of ways. Kibbutz is a communal settlement however they do not suffer from any tragedies of the commons or shirking because they stand firm in providing private property to be used by those in need protected through trust. A group of Jewish pioneers started this idea fulfilling the biblical passage in Acts, “from each according to his ability, to each according to his needs”. The needy would receive food and shelter dependent upon their labor according to their need like the gleaning principle. When an individual becomes a member he or she agrees to live in the community and provide productive labor in the line of work in which he or she is most productive. The Kibbutz expands on the gleaning principle with establishing communities for people that are in need but willing to provide productive labor in return for food and shelter.

Another communal living example is the organization Community First! Village based in Austin, Texas. In the Community First! Village, there are more than 500 mobile homes for the homeless creating an artificial community (“Mobile Loaves & Fishes: Serving Goodness”). Within this organization, the members have multiple lines of work such as in agricultural, car maintenance, forging, art, culinary, community inns, and even a cinema. Alan Graham founded this village with the idea of providing opportunities for the homeless, the needy, and provide food, clothing, and shelter in return for their productive labor. This village is designed similar to the gleaning principle such that both parties’ benefit, the needy are provided for through food, clothes, and shelter and the owner benefits from both the productive work of the members and the satisfaction of his desire to support those in need. In this organization the needy are provided for in a communal way through private property in which the members restore dignity to work and provide productive labor to meet their daily needs.

A different kind of welfare system that is still like the gleaning principle is the Mormon welfare. This type of welfare is different in the fact that a portion of the welfare program is designed to be dispersed among the Mormons in that if one of the members becomes in need the others can provide aid. Mormons are encouraged to stay clear of debts and increase their savings as well as stock up on canned goods, food, and supplies to always be ready to help those in need. Within the Mormon church, if a member becomes in need he can meet with the bishop and go through a warehouse owned by the Mormons and select items that the bishop agrees to for free. This aids in a time of need in which the member will provide labor to contribute towards the free goods received which

increases their self-sufficiency and maintains their self-respect. The Mormon church also stresses the importance of providing for non-members of the church, however in this area Mormons give aid to those in need without requiring the needy to provide labor to receive aid (Riley Fall 2012). Again, this ideology is like the gleaning principle in that within the Mormon church, members can receive aid when in need while providing some labor in return. Although this is not a seamless mirror of the gleaning principle it still contains the essence of providing for those in need through labor to maintain self-respect and self-sufficiency.

The final example strays from the previous examples, however, still exemplifies the framework of the gleaning principle. Eric Stumberg, CEO of TengoInternet, was looking for more office space as his business was expanding and through this process, he found an office bigger than what he needed to provide for those in need of an office space. Stumberg understood the gleaning principle and modeled after this practice since his goal was to provide opportunities to those in need in which the needy are dependent upon their own labor. Stumberg filled the two open offices with a non-profit fighting against human trafficking as well as an Anglican priest with the only stipulation that they would use the space to work (Baker and Parks, 2019). This is yet another example of the gleaning principle at its core benefitting the two parties involved for Stumberg benefitted from satisfying his desire to lend out space seeking to be hospitable and the non-profit and the priest received benefit through the free office space dependent upon their own labor.

V. Conclusion

The gleaning principle at its framework seeks to provide for those in need establishing opportunities for the needy such that the needy are encouraged to engage in labor in return for the opportunities. This principle proves to be effective and efficient for multiple reasons. The needy benefit from this principle in that the daily necessities are provided to them. Not only are the daily necessities provided, the needy must engage in labor which helps restore dignity to work beginning the restoration process of self-sufficiency. The individual who creates these opportunities also benefits from the productive labor offered from the needy as well as through a social benefit of satisfying his desires of providing for those in need. The individual or entrepreneur could choose to provide to the needy at an economic loss, but still benefit through the social benefit of fulfilling his desires to provide for the poor.

In the historical analysis of the principle, it was clear that the priority of the principle was that the poor, needy, and outcasts had the opportunities to provide for themselves through the manual labor of gleaning through the fields of the participating landowners. The principle was efficient in providing for the needy as they were dependent upon their own labor and effective in the sense that the needy agreed to the rules of gleaning. The needy also provided a benefit to the landowners for they did not have to pay the servants to go through the fields and reap again, but the needy went through gleaned the leftovers. Although the leftovers were not added to the landowners' net income, they did not have to pay their servants more and provided for the needy.

Due to the structure of the principle, there were also no documented instances of the needy trampling or destroying any fields during the gleaning process. This is very important and is because of two factors. First, the landowners had full ownership and responsibility over their land and thus over who had access and how much one could access. Second, the landowners established stipulations for the gleaners in that there was a limit to how much one could glean. If some gleaners were not respecting a landowners' field by means of over gleaning or even damaging the field, he could restrict those gleaners from his land.

The gleaning structure proved to be well-developed for it provided opportunities for those in need who cooperated with the landlords while providing labor. This point alone changes the incentive structure for the needy, for in this situation the needy are dependent fully on their labor which encourages them in the direction of self-sufficiency. The structure of the principle does not seek to provide for the poor, but to provide opportunities for the poor to begin a life of self-sufficiency and strive to evade this life and cycle of poverty. This is also demonstrated, with the examples of companies or organizations that mirrored this principle, that the goals of these companies and organizations were to provide for the needy. Most importantly, not only provide but promote opportunities for those in need to associate labor with rewards to escape the cycle of poverty.

In conclusion, the historical analysis, discussion of economic principles, description of the commons, and application of the principle all supported the main thesis suggesting the gleaning principle provided an efficient and effective way in providing for

those in need. Throughout the research process, this principle is unique in its presentation and rules, however it proves to be an excellent model in providing for those in need. The model proved to be simple which was portrayed with the analysis of other companies or organizations that have pursued the same goal of gleaning. With one example of the company TengoInternet the model of this principle goes beyond merely providing the needy with food, but rather establishes an opportunity for those in need. Poverty is a vast issue which cannot be solved quickly but one of the most important factors in aiding in poverty alleviation is through the incentive structure of providing for those in need. The gleaning principle provides great insight into efforts of poverty alleviation with a sound incentive structure providing for those in need only in as much as they desire to work, ultimately striving for the way out of poverty, through self-sufficiency.

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