



# HOLISTIC MANAGEMENT A WHOLE-FARM DECISION MAKING FRAMEWORK

FUNDAMENTALS OF SUSTAINABLE AGRICULTURE

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**Abstract:** This publication serves as an introduction to holistic management and provides resources for further information. Holistic Management™ is a decision making framework that assists farmers and others in establishing a long-term goal, a detailed financial plan, a biological plan for the landscape and a monitoring program to assess progress toward the goal. Holistic Management helps managers to ask the right questions and guides them in setting priorities. In holistic financial planning, profit is planned at the beginning of the year. This is in stark contrast to conventional financial planning where the net profit is often non-existent or a small amount left over once expenses are accounted for.

By Preston Sullivan  
NCAT Agriculture Specialist – July 2001

Sustainable agriculture seeks in principle to “sustain” economic viability, environmental stewardship, and social responsibility. These three tenets are to be embraced as one functional unit. Decisions concerning a sustainable agriculture should then enhance the environment and the farmer’s economic situation and benefit the regional society. Holistic Management™ gives us a way to move forward on these three tenets. It gives us a way to design agriculture to truly mimic nature’s principles of sustainability. It gives us a way to make decisions that automatically take into account the society, the economics, and the environment before they are made.

## What is Holistic Management?

Holistic Management is a simple decision-making framework that can be learned like any

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other skill. People who manage holistically can realize an improved quality of life and generate real wealth, while at the same time improving the land and community around them. They develop the ability to ask the right questions and to confidently proceed toward the future they design for themselves. Holistic Management is for anyone who wants consistent profit from agriculture, a high quality of life, and more time to enjoy it. In short, it’s a way to have fun, make money and conserve our natural resource base, all at the same time.

Holistic Management is a process for sorting out and making sense of all the tools and choices that face us each day. Once a person begins to manage holistically, he or she learns what to say no to, and what to say yes to. Being a *proactive*



process, holistic managers learn how to move beyond crisis management and toward planned prosperity. They are able to manage their finances wisely, have more time for enjoyment, live life according to their values, and gain the confidence of knowing that their decisions are improving the environment and the community they live in – leading to a better world for their grandchildren.

## The Holistic Management Process

As the name “holistic” implies, resources are managed in whole units rather than as parts in isolation from their surroundings. In order to have a clear description of what is being managed, people begin by defining their whole. This definition involves a listing of all the decision-makers involved in management, the resources they have to work with, and the money available. From there, a detailed holistic goal is developed. The holistic goal includes a values-based quality of life statement, a listing of forms of production that will make the quality of life possible, and a description of how the land base needs to be far into the future, in order to sustain the production.

Defining the whole and writing a goal is a powerful exercise. People who have written goals are much more likely to succeed than those who do not. Since the holistic goal is based on the deeper underlying values of the decision-makers, it empowers them to ask better questions, to ask the deeper questions, to ask appropriate questions from which they can make better decisions. Some examples include: “Why am I farming in the first place?” “What is it that I’m trying to accomplish?” “What kind of world do I want for my grandchildren?” Building a farm plan on these questions makes for a powerful plan.

The holistic goal remains the centerpiece of holistic management and is referred to constantly when management decisions are being made. The goal is what drives the decision-making. But there’s more. In order to sustain a farm operation, profit must come from somewhere. Most likely, at least some of the profit will come from on-farm enterprises.

## Financial Planning

Holistic managers use a potent financial planning process that empowers them to make decisions that are simultaneously good for the environment, the local community and the bottom line. The holistic financial plan provides a road map to help people navigate through their financial year, assured that the profit will be there at year’s end.

The financial plan allows managers to select enterprises that do not conflict with their values, and then to plan a profit up front. Once the profit is planned from the expected income, expense dollars are allocated sequentially where they will do the most good.

Holistic financial planning differs from conventional financial planning in several ways. Conventional cash flow budgeting involves estimating income from an enterprise, then allocating expenses for capital investment, variable costs, and fixed costs. Attempts are made to keep costs below anticipated gross income by using past records and other information and adjusting for cost trends. As long as the expenses appear cost effective and the plan predicts no cash shortages the bank won’t cover, all should go well. Still, the results of cash flow planning often include considerable anxiety towards year’s end over the profit margin. In many cases, the expenses nearly equal the planned gross income, producing very little profit (1). Usually there are plenty of excuses to make up for the small margin – weather, markets, and pests. All too often we may take the attitude of, oh well, things will be better next year.

With holistic financial planning the projected income is planned, then the desired profit is allocated at the outset, heavily affecting how the remainder of the budget will be allocated. Planning a hefty profit before any expenses are allocated is a key distinction. After profit is planned, expenses are allocated into three categories: Wealth generating, Inescapable, and Maintenance (W I M for short). Wealth generating expenses produce profit for the operation this year. Inescapable expenses must be paid regardless (taxes, land payments, etc.), while maintenance expenses, though essential to the business, do not produce profit this year.

Overhead and variable categories are not used at all because they don't describe what the expenses within each category do for the enterprise. Once the holistic financial plan is written, it is monitored monthly to stay on track toward the planned profit. Monthly monitoring allows deviations from plan to be caught early and corrected before there is serious financial trouble. The financial planning process helps control three human tendencies that work against financial success: 1) the tendency to allow cost of production to rise to the level of optimistically anticipated income, 2) the tendency to borrow heavily against the optimistically anticipated income, 3) the tendency to do little planning ahead of time on paper. Even when planning is done

using conventional cash flow budgeting, production is the goal, not profit. With holistic financial planning, profit is the goal and production is the means of achieving it. That's why profit is allocated right off the top of anticipated income. Planning a hefty profit up front forces the manager to overcome the three tendencies that lead to low profit margins. From there, meeting necessary expenses after planning our profit requires creativity. How the profit is used at the end of the year is unimportant, but the objective of holistic planning is to make sure there will be a substantial profit at the end of the year. Some of the key distinctions between holistic financial planning and the conventional cash flow model that most farmers use are shown in Table 1.

Table 1. Distinctions between holistic financial planning and cash flow planning.

<b>Holistic</b>	<b>Cash-flow</b>
profit is the goal	production is the goal
profit is planned first	profit is what's left over
expenses put into W I M categories	expenses put in overhead and variable costs
monthly monitoring to stay on track	annual monitoring?

Figure 1 below shows a comparison between a cash-flow budget and a holistic budget for a dairy farm in Ohio (2). Each budget used the same projected income; however, the cash-flow budget uses expense categories which in effect mask any knowledge of where to cut expenses without affecting profit. Notice that no debt service is broken out and a shortfall of \$26,000 is shown.

With the holistic budget, the expenses are put into categories of wealth generating expenses, inescapable expenses, and maintenance expenses. Using these categories, one can easily see where to cut expenses, while preserving our planned profit and still meeting our debt obligations. The excess maintenance expenses of \$26,000 will have to be cut by creative means to preserve our profit and still meet the debt obligation.

There is much more to holistic financial planning than has been introduced here. Some additional aspects include managing debt, testing financial decisions toward a well-defined goal, creating and using a livestock production worksheet to plan cattle buying and selling, and brainstorming new enterprises.

## The Landscape That Sustains Us

Since we all depend directly on the landscape for our very existence (food, clothes, water, etc.), we benefit greatly from gaining a complete understanding of how the landscape functions. The very essence of the term "holistic" is that nature functions only in wholes, not in parts, and that we will understand nature better when we manage it as a whole rather than as separate parts. Holistic Management gives people a way to make decisions that more accurately mirror the way nature functions (in wholes) and thereby ensure that our farming is truly sustainable over time.

To better understand how nature functions, her basic processes need to be considered. Looking closely, four basic processes can be found in all natural systems. First, water falls to earth as rain, filters through the soil and is either taken up by plants or continues downward to become ground water. When water is cycling effectively, floods are infrequent and of lower impact, water is released slowly through underground flow into springs and streams, and erosion is virtually non-

<b>Cash-flow Budget</b>	
Income.....	150,000
Operating Expenses.....	110,000
Administrative Expenses.....	62,000
Capital Expenditures.....	4,000
Cash flow.....	<26,000>
<b>Holistic Budget</b>	
Income.....	150,000
Debt Service.....	36,000
\$ Available for Operations.....	114,000
<i>Less 25% profit.....</i>	<i>28,500</i>
\$ Available for Expenses.....	85,500
Wealth generating expenses.....	9,100
Inescapable expenses.....	3,400
\$ Available for Maintenance.....	73,000
Maintenance expenses.....	99,000
<b>Excess maintenance expenses to be cut.....</b>	<b>26,000</b>

Figure 1. Comparison of budgeting process in holistic & conventional management

existent. If on the other hand, bare soil is exposed and plant density is low, most water runs off the landscape rapidly resulting in soil erosion, much less water entry into the soil, and severe and more frequent flooding. So, an effective water cycle is apparent in nature and essential to a sustainable agriculture.

A second natural process we can observe in nature is the mineral cycle through the biological system. Minerals needed for biological growth are constantly recycled from soil to plant to animal and back to soil again. There is very little waste in the natural mineral cycle. There is no need for fertilizer in nature, as all the fertility is recycled again and again with very little loss. Ultimately, to be sustainable, we need to find ways to utilize the natural mineral cycle while minimizing our off-farm purchase of minerals. Farming practices that inhibit the natural mineral cycle, only reduce the sustainability of our farm.

A third natural process shows us that plant and animal communities strive toward high biodiversity. Not only is diversity high in the numbers of species, but also the genetic diversity within species, and a wide age structure of each population present. Greater diversity produces greater stability within the system. It also assures minimal pest problems. Large expanses of

monoculture represent a simple level of diversity. Monocultures are almost never present in nature. Monocultures require great energy expenditure, either with fossil fuels or animal and human power to maintain. Weed invasion is nature’s way of injecting diversity into monocultural cropland. When biodiversity is increased, the cost of pest control and fertilizer is decreased. Crop rotation is the first step toward increasing biodiversity on the farm. It helps break weed and pest life cycles and provides complementary fertilization to crops in sequence with each other. Advancing from rotation to strip intercrops represents an even higher level of biodiversity. Strip intercrops of corn and soybeans or cotton and alfalfa are two examples. Increasing habitat for more beneficial organisms with more borders, windbreaks, and special plantings for natural enemies of pests represent even higher levels of biodiversity and stability. For more information on biodiversity, request the ATTRA publications entitled *Intercropping Principles and Production Practices* and *Farmscaping to Enhance Biological Control*.

The fourth natural process involves the flow of energy from the sun through the biological system. The sun is the fuel driving the biology of our farm. Energy flows from the sun through the ecosystem from one level to the next. Sunlight is



absorbed by the green plant, enabling it to grow. Plants are eaten by animals that are in turn eaten by predators which are eaten by even higher predators. During each step, energy is being transferred from one level to the next. Energy is transferred below ground through plant roots that eventually die. The dead roots become food for decomposer organisms. The waste and by-products from the primary decomposers are consumed by another set of secondary decomposers. Finally the residue is broken down into plant available nutrients and soil humus. At each step of the decomposition process, energy is either transferred from one organism to another or is lost as heat.

High energy flow is typified by a thick stand of green plants covering the soil for as long a time as possible. Growing mixtures of two or more plant types increases the leaf area available to capture sunlight. The volume of plants (tight spacing) also enhances energy flow. By growing two or more crops per year, we can lengthen the time that plants are in the field collecting solar energy. If soils are left bare, no sunlight is being converted into energy. When energy flow is reduced by periods when the soil is bare or without a crop, the decomposer organisms living in the soil are on a starvation diet.

When we modify any one of these natural processes (water cycle, mineral cycle, biodiversity, and energy flow) we affect the others as well – after all, they function as a whole. When we build our farm enterprises around these natural processes, we have a plan that will sustain our family today and future generations tomorrow. After all, these are nature's rules. The sooner we live by them rather than fighting them, the sooner we will produce a sustainable farm. When we fight nature's rules, we only hurt ourselves in the end.

### **Deciding Which Tools to Use**

The word "tools" is used broadly in holistic management. Though we tend to think first of technology in all its many forms when we think of tools (include everything from hand tools to high tech computers), there are several other tools available to us. The additional tools

include: fire, rest (non-disturbance or letting the land lay idle), grazing, animal impact (trampling the land with very high stock density for a short time) and living organisms (naturally occurring plants and animals which can be harnessed to our benefit). Three additional tools we may not consider as tools are money, labor, and creativity. These last three tools cannot be used alone but only in conjunction with other tools.

Each of the above mentioned tools affects the landscape depending on when and how they are used and in what climatic region. For example, in moist regions with frequent rainfall, rest restores biodiversity to natural landscapes. In dryer areas with seasonal rainfall, rest reduces biodiversity. In those drier regions, animal impact is most beneficial in restoring rangeland health (1).

Many of the technology tools we often use can be replaced by living organisms in creative ways. One example comes from a Canadian rancher who solved his gopher problem by erecting hawk perches over his pastures. When the hawks patrolled the area regularly by using the perches, the gophers left in search of safer feeding areas.

### **Testing Decisions**

Decision making (choosing tools and how to use them) is handled in an organized fashion in Holistic Management. Each decision is subjected to several simple testing questions that enable the decision-maker to see the likely effects of that decision on the whole. By quickly running a decision through the testing questions you get some assurance that the decision will be sound environmentally, economically, and socially.

There are seven tests but not all will apply to every decision. If information is lacking to make the decision, the testing will catch it. Testing forces the manager to consider much more than just cost or gut feel. If the decision fails one or more tests, the decision may be modified and run back through the testing guidelines again. After a second testing failure the decision might be abandoned all together. After a person gains experience, the testing questions become internalized. From that point

on, appropriate testing guidelines automatically come to mind when faced with decisions.

One way to look at testing decisions in this manner is to consider testing as the needle on a compass and the holistic goal as the magnetic north the compass is attracted to. All testing is done toward the holistic goal. In fact, the first question a person should ask is: does this decision take me closer to my holistic goal? If the answer is clearly no, then drop the decision. If the answer is yes or maybe, then test the decision further.

### Monitoring Our Decisions

Because nature is so complex that we can only begin to understand it, decisions affecting the landscape are assumed wrong and closely monitored for early warning indicators of need for change. For example, if range burning is used to increase the plant density, one would look at the plant density later to determine if the effort was successful. By assuming the decision is wrong, we humble ourselves to the great complexity in nature, thus forcing us to monitor to keep on track toward our holistic goal. If we assume our decision is right, we might not monitor at all, or if we did, it would be only to record the results. Once this new holistic perspective is internalized and decisions are made accordingly, things begin to change for the better. Profits increase, the environment improves, and rural families prosper.

### Holistic Management—In Practice

#### Example # 1

Oklahoma rancher Walt Davis realized a number of benefits after he started managing holistically.

The following is adapted from an article he published in the *HRM Quarterly*, Spring 1996: p. 3–4. Table 2 shows major changes and observations before and after holistic management.

Ranching is a biological process, not an industrial process (3). The objective is to promote life and turn it into dollars. Prior to managing holistically, Davis was using many chemicals that kill life. Spraying for horn flies also killed the beneficial insects. When he stopped spraying, the number of horn flies went down. When the cattle were moved regularly, the horn fly larvae that hatched from the cow manure were left behind where parasites could feed on the fly larvae. Their horsefly problem also went away because the solitary wasps that feed on horseflies were able to increase their population without the sprays. Working with nature causes many problems to be designed out of the system while at the same time reducing operating costs.

When Walt changed his calf-weaning program, the need for medications for stress induced by the weaning became unnecessary. Up until this time Davis had looked to technology to fix problems. Taking a closer look at the root cause of this problem led to a new way to wean the calves. He simply separated them from the mother cows with an electric fence.

At first the calves bawled for about 45 minutes, then the mothers and calves laid out next to each other along opposite sides of the fence and were happy. The stress was psychological, not from hunger that formerly made the calves sick. Since starting to manage holistically, Walt prevents most problems rather than solving them with purchased inputs after they happen.

Table 2. The Walt Davis ranch before and after holistic management.

#### Before Holistic Management

Cost \$378/cow  
Fall calving  
Spraying for flies  
Rotating cattle  
Terrible cattle performance

#### After Holistic Management

Cost \$83/cow  
Spring calving  
Flies no longer a problem  
Planned grazing  
Stopped fertilizing pasture  
More pasture plant diversity  
Stopped spraying

The financial planning aspects of holistic management have allowed the Davises to remain profitable for over 15 years in a row. Even through the tough years of 1988 with ¼ of normal rainfall, and 1989 with a short grass season and 1990 when 80% of the ranch went under water, the ranch was still profitable. The most progress in the beginning came from a better understanding of the ecosystem processes. This understanding led to long-term success. When the Davises set their holistic goal, they had a clear picture of where they were going and what they wanted. All their decisions were based on pursuit of that holistic goal.

#### Example # 2

The following discussion is adapted from "Building the Soil First—a successful organic farm" published in *Holistic Management Quarterly*, April 1998. p. 4-5.

Dave Washburn and Meg Anderson, organic vegetable farmers of Stillwater, Minnesota, were an urban couple with a dream of becoming organic farmers. Both had careers in Minneapolis when they quit their corporate jobs and bought a 35-acre farm in Stillwater. They quickly ran into financial challenges and could see no way to recoup their initial investment. Two years into their farming operations they took a course in Holistic Management. Holistic Management made sense to them immediately. Through using the decision-making process they could see clearly which tools were really needed, and that most of the tools on their "wish list" were not needed at all. They quickly learned that marketing and pricing were key to their success. Washburn and Anderson find they can meet their labor needs with local college graduates who want to go into farming. They also hire Hmong workers (Asian hill tribe immigrants) and provide them with land to grow gardens for their own use. When they have decisions to make, they sit down and test them towards their holistic goal. It takes about 5 minutes to come to agreement without any arguments (4).

As of 1998 they serve 250 local families that receive weekly seasonal vegetables through their community supported agriculture operation. The

families pay a set amount at the start of the season for this weekly delivery. All the produce is delivered within 24 hours of harvesting, which gives customers the ultimate in freshness.

Another 55 people signed up for a weekly bouquet of flowers from the farm also. The financial planning helped Dave and Meg see the optimum level of production that allows them to control their own prices. They used the financial planning software to play "what-if" games with different levels of production. Seven years into operation they have more business than they can handle.

#### Example # 3

The following is adapted from "Learning Success" by Ann Adams, published in *Holistic Management In Practice*, July 1998. p. 6-7.

Robert and Cheryl Cosner and their three children operate an 800-acre ranch in the south central part of Washington. They first learned about holistic management in 1984. It wasn't until 1989 that they took their first introductory course and wrote their first holistic plan. They raise registered Angus cattle but have recently started running 40 ewes with their 75 head of cattle with plans to venture into art-quality wool. Since managing holistically they are more able to see the options open to them and are more patient in letting those options unfold.

The impetus to investigate Holistic Management coincided with the breakup of a ranching partnership. The dissolution left them operating in crisis mode and without adequate machinery.

This situation required them to use their creativity. Misfortune actually forced them out of conventional thinking mode and slowed down their decision making. By looking at a problem from a number of angles, they eventually got more information or understanding about the larger issues surrounding the problem. "You have to keep being open," says Robert. "Change comes in small steps unless you have an instant paradigm shift" (5). Two questions they continue to ask themselves are "How can we solve this problem for free?" and, "What is the least expensive way of getting it done?"

Asking the right kind of questions led them to create a holistic financial plan. They needed some after-tax profit and to pay off their operating loan free and clear so they could build their own line of credit. Paying off their loan became the focus of the financial plan. This focus helped them to make more decisions holistically. Though they wanted to get out of the hay-cutting business, they decided to continue to cut hay until the debt was paid off. Within 5 years, it was paid off. They were pleased at how well the financial planning gave them a target to shoot for and a way to judge their progress. When their banker learned of their financial plan he was so impressed that he discussed the possibility of the Cosners teaching holistic financial planning to some of the banker's other customers. After that, the Cosners realized that their concerns about finances drew them more deeply into practicing holistic management. "The financial planning was a tool that helped us get past the crisis and on to the next stage."

## Training is Available

With rare exceptions, most holistic managers take training from a certified educator in a classroom setting. The Savory Center for Holistic Management in Albuquerque, New Mexico (6), certifies a limited number of educators who have undergone specific training in helping others learn to practice holistic management.

Certified educators are located throughout the world and can also provide technical assistance when necessary. These educators are committed to practicing holistic management in their own lives, seek out opportunities for staying current with the latest developments in holistic management, and maintain high standards of ethical conduct in their work. The coursework each educator offers varies somewhat but generally falls into the following headings:

### Holistic Decision Making

In the introductory course one learns how to:

- make sense out of all the choices faced daily,
- move from crisis management to planned prosperity,
- create more time to enjoy life,

- live life according to one's values,
- test decisions to see if they conflict with the desired lifestyle,
- monitor decisions to stay on track toward a desired lifestyle,
- understand the effect of decisions on the landscape.

Students leave the decision making class with their own values-based holistic goal. There is ample opportunity to practice the decision-making skills in class with the instructor's aid. The holistic goal provides a descriptive road map to the future and a guidepost to decision making for the people who are managing the whole.

### Holistic Financial Planning

In financial planning you will learn: the business of agriculture, why some farmers fail to make a profit, how to select enterprises which are profitable, how to plan a profit and produce it rather than striving for production only, how to allocate expense dollars where they do the most good, how to produce a list of potential enterprises in 20 minutes and pick out the most profitable ones which do not conflict with your values. The financial planning class utilizes many of the decision-making skills learned earlier to make financial decisions.

### Holistic Biological, Grazing, and Land Planning

In this class, people learn how to manage landscapes holistically. You develop skills to create a detailed land plan that includes not only the crop and livestock arrangements but also wildlife and recreational needs and the quality of life defined in the holistic goal. You learn how to manage your landscape in tune with nature's principles, which assures sustainability. You get practice in monitoring rangeland, grassland, and cropland for indicators of how well nature's principles are working on your land. The grazing and land plan complement the financial plan to assure economic, social, and environmental sustainability.

### For More Information

Contact the Savory Center for Holistic Management for more information and a referral to a certified educator in your area or a local network



(see reference #6). Or visit their web page at: [www.holisticmanagement.org](http://www.holisticmanagement.org) Holistic management was first developed by Allan Savory who wrote the book *Holistic Resource Management*, published in 1988. Since that time the book has been updated and the title now is simply: *Holistic Management*. The Savory Center for Holistic Management, which Savory founded in 1985, offers training in holistic management through its network of certified educators across the US and several foreign countries. The Savory Center, staffed by 9 dedicated individuals, operates under the non-profit status. Additionally, they supply many useful materials to holistic managers and educators.

### Summary

In summary, the holistic decision-making process incorporates values-based goal setting, the appropriate use of tools, financial planning, land planning, biological planning, and careful monitoring of effects. All these aspects are managed as a whole unit. The benefits are higher quality of life, financial stability, consistent profitability, and the confidence of knowing that your decisions are improving the environment and the community you live in. It provides people with a means to make decisions that more accurately mirror the way nature functions (in wholes), and thereby ensure that our civilization is truly sustainable over time.

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1010 Tijeras, N.W.  
Albuquerque, NM 87102  
505-842-5252  
800-654-3619

**By Preston Sullivan  
NCAT Agriculture Specialist**

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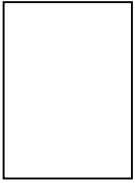


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NCAT/ATTR  
PO Box 3657  
Fayetteville, AR 72702



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