

# Self-Reliance

Number 10

November-December 1977

## Inside

### Articles

Recycling Old Schools  
Aquaculture Systems  
State and City Legal Powers  
The National Energy Plan  
Credit Unions

p 1  
p 3  
p 6  
p 11  
p 13

### Regular Features

Resources—Aquaculture  
Progress Reports  
Resources—Cable TV  
Notes

p 5  
p 8  
p 10  
p 16

## Staff

### Editor

Richard Kazis

### Publications

Virginia Drewry

### Urban Agriculture

Gil Friend

Miranda Smith

### Energy

David Morris

Jack Nelson

### Finance

Jeff Zinsmeyer

### Waste Utilization

Neil Seldman

### Information and Support

Margaret McCarthy

Wendy Mishkin

Pat Miyamoto

Linda White

## Self-Reliance

Published bi-monthly by the  
Institute for Local Self-Reliance,  
at 1717 18th Street, NW,  
Washington DC 20009.  
(202) 232-4108

### Subscriptions:

Individuals, \$6; Institutions, \$12

© 1977 Institute for Local Self-Reliance

## *After the Baby Boom*

# Recycling Old Schools

At their 1974 Town Meeting, the citizens of Needham, Massachusetts, almost voted to tear down the vacant Stephen Palmer Elementary School. Fortunately, they decided against demolition. Instead, they created a committee to investigate alternative uses for the sixty-year old structure. Because the building was in excellent condition and was situated in a prime location, the committee was able to discover several alternatives to demolition. Without major renovations, it was concluded, the two-story structure could house small businesses, community organizations, professional offices, or social service programs. With minor alterations, it could be converted into large apartments. Since Needham faced a housing shortage, town residents decided to lease the building to a private investment group for conversion into apartments. Although most of the former school's 33,200 square feet of usable floor area will be divided up among the twenty-eight rental units, approximately 6,000 square feet of space will be made available for use by community organizations.

## The Baby Boom is Over

All over the country, other cities and towns are facing the problem of what to do with surplus school buildings now that the "baby boom" has ended. HEW estimates that almost 2.4 million fewer pupils are attending public schools this year than six years ago when enrollment reached a national peak. During the 1975-76 school year, 9,974 fewer public elementary schools and 1,267 fewer public secondary schools were in use than ten years before. As enrollments continue to decline steadily, more and more schools will be declared surplus.

In most cases, area residents are very concerned about the fate of vacant neighborhood schools. They have paid for the buildings with their taxes and use them for community events. To tear down a structurally-sound school building because it is no longer needed can deprive nearby residents of what one Maryland school official has called "an important source of community identity." To allow a school to lie vacant and boarded up can contribute to the deterioration of the surrounding neighborhood. But surplus schools need not be abandoned: they can become catalysts for renewed community cohesion and development.

## What is Being Done With Surplus Schools?

Some cities are using their extra school buildings to house municipal offices or local and federal agencies. Haverhill, Massachusetts, had a surplus high school with over 110,000 square feet of usable floor space. The building now contains the City Hall and jail. In Richmond, Virginia, the city leases the former Randolph School to three state and federal agencies and to the local community action program (R-CAP), which uses its space for neighborhood meetings and for various recreational, health care, senior citizen, and educational programs. Neighborhood residents regard the old school as a community landmark and, according to one CAP worker, use all of the available space from 8:30 AM to 10 PM daily.

In many cities, non-government community organizations are using vacant neighborhood schools. Senior citizens in St. Louis, Missouri, have bought the one-story Fairfax School for \$22,000 and are using it as a senior multi-purpose center that offers legal, medical, nutritional, and recreational programs. Schools in Richmond, Virginia, and Columbus, Ohio, have been used as day care facilities and as training centers for the mentally-retarded. The Powderhorn Community Council in Minneapolis wants to convert a large elementary school into a community resource center that would provide working space for local craftspeople and might even house small community-owned businesses.

## Other Possible Uses

Surplus schools need not be used solely for office or meeting space. Without extensive renovation, the buildings can become vital commercial centers, housing a variety of small businesses, such as printing shops, tool and equipment rental enterprises, pharmacies, book and record stores, cleaners, food and flower stores, clothing shops, and even neighborhood banks and credit unions. Cafeterias and kitchens could be converted into restaurants. Although most former schools are not suited for heavy industrial use because they have too many windows and because they are usually surrounded by residential areas, they are ideal locations for business enterprises that can serve nearby residents. A neighborhood school, for example, would provide an excellent location for a home insulation service or an energy audit team.

## Looking for Gift Ideas?

Preparations for the holiday season have already begun. If you are like us, you are probably going through the annual "what should it be this year?" crisis. Finding suitable presents for family and friends seems to get more and more difficult each year.

But before you throw up your hands in frustration, let us make a few modest suggestions. You subscribe to **SELF-RELIANCE**. You have probably also seen a few of our pamphlets, working papers, or wall charts. If you find our materials interesting, there is a good chance that a friend or a family member also would.

Here are a few specific suggestions:

|   |        |
|---|--------|
| Urban Garden Chart (wall chart)                 | \$3.00 |
| Gardening for Health and Nutrition (wall chart) | 3.00   |
| Neighborhood Power: The New Localism            |        |
| by Morris and Hess                              | 3.95   |
| Kilowatt Counter: A Consumer's Guide to Energy  | 2.00   |
| New Directions in Solid Waste Management        |        |
| by Neil Seidman                                 | 2.00   |
| Energy for Survival by Wilson Clark             | 4.95   |
| Sharing Smaller Pies by Tom Bender              | 2.00   |
| The Food Co-op Handbook                         | 4.95   |
| How to Research Your Local Bank                 | 2.00   |
| Subscription to <b>SELF-RELIANCE</b>            | 6.00   |

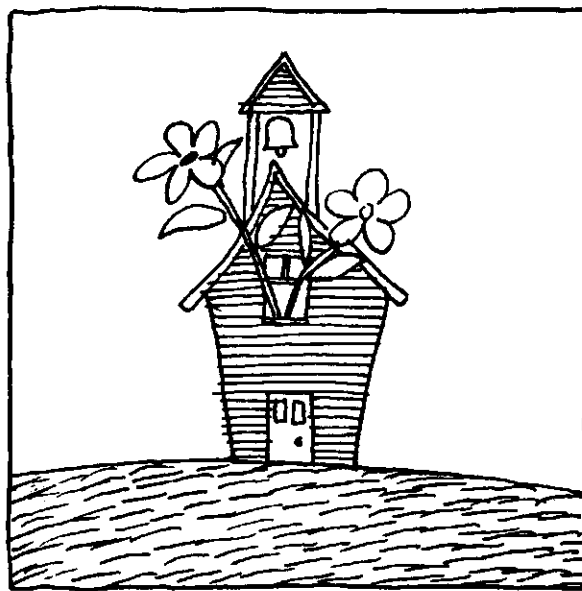
Please add 25¢ per title (50¢ per chart) for postage and handling. Send orders to: ILSP Publications, 1717 18th St. NW, Washington DC 20006.

And have an enjoyable holiday season!

Commercial use of former schools does not necessarily deprive neighborhood residents of their community centers. Auditoriums can be reserved for community meetings and neighborhood art centers. Former playgrounds can be used for recreational facilities or small parks. Space can even be made for a "little City Hall," offering decentralized municipal services.

## The Time to Act is Now

Many cities are eager to sell or lease their surplus schools. In New York City, twenty-nine schools lie vacant. Most have suffered serious vandalism since being closed. In Columbus, Ohio, where eight schools have recently been closed and where fourteen more may soon be declared surplus, school officials are "... anxious to have the buildings occupied and to find creative uses for them that will help the community, even if it's only for a \$1 a year lease," according to Bev Bowen of the public school system. Having the buildings occupied would save the city maintenance money and would calm residents' anger over the closing of their neighborhood schools.



Coby Eveidell in *Working Papers*

Although policies and procedures for recycling surplus schools vary from city to city, municipal officials in your community may be as eager as are the Columbus officials to have unneeded local schools occupied. Because school boards cannot afford to maintain vacant schools, local community organizations may be able to lease or buy large, structurally-sound buildings for a price far below normal market rates. Some school systems may even be persuaded to allow a non-profit group to use a vacant school free-of-charge just to protect the building from vandalism. HUD Block Grant money, Small Business Administration funds, or Economic Development Administration financing may be available for renovations. State and municipal agencies and even, in some cases, private historical preservation foundations, may also provide financing assistance to community groups that want to buy a surplus school. Look around your neighborhood. If you know of an abandoned school, find out what the city plans to do with it. If they plan to tear it down, don't let them. Those buildings are valuable resources. You paid for them, you should benefit from them. That abandoned school in your neighborhood can — and should — become a center for community development.

—Virginia Drewry

# ● An Aquaculture Primer: The State of the Art

The high cost of food, although it is less well-publicized now than it was during the time of the meat boycott, is still a serious problem. A sizeable fraction of pet food consumption is by humans, not by pets. As one solution to the problem, scientists are looking for a cheap source of protein. Because fish are among our most protein-rich foods, containing about ten percent crude protein, they are often suggested as a possible answer. Traditionally, freshwater and marine fisheries have easily supplied our needs. Now, however, over-fishing and the pollution of spawning and feeding areas have had their effect. Although yield data are inconclusive, it is clear that more time and labor are needed to catch a ton of fish today than twenty years ago. We have by no means fully harvested the far reaches of the sea, but the farther we have to go to catch our fish, the higher the energy inputs will be and the greater the cost to the consumer. It has been proposed by some that, through aquaculture, we can make better use of our resources close to home.

## ● The Broad Range of Aquaculture Projects

Aquaculture means, simply, fish farming, growing fish in a controlled environment. A variety of aquaculture projects have been attempted in both urban and rural settings. Too often, these projects have merely answered the question: can we grow fish? Of course we can. Thousands of aquariums all across the country grow fish. The real question that must be asked is: can we produce fish economically? Can aquaculture provide a cheap source of protein?

This confusion of goals plagued an aquaculture project in Washington DC three years ago. Dr. Fernwood Mitchell, a commercial fish farmer, demonstrated that he *could* produce rainbow trout in his basement. Given that "fish-in-the-basement" is an idea with tremendous romantic appeal, it was easy to extrapolate from the basement tanks to visions of large-scale urban protein production. Dr. Mitchell's project, however, could not be widely duplicated as an economic venture. Basement aquaculture can only be economical if the transportation costs to rural producers are so high that basement growing, with all its aeration and filtration costs, is competitive in comparison.

Fish-in-the-basement is an intensive, closed aquaculture system. Water must be filtered and aerated constantly, water temperature must be controlled, and supplemental feedings are necessary. The grower must make sure that all aspects of the environment have been appropriately designed. These intensive systems are characterized by their complexity, instability, and riskiness. Another rainbow trout demonstration project in Washington failed because energy and feed costs proved to be too substantial. Moreover, the riskiness of the

venture became apparent when a power outage knocked out the aeration system, killing all the fish.

Not all aquaculture is so intensive. Growing methods vary with the type of fish being cultivated, the environment in which the fish are produced, the market being served, and the market cost of the same fish when caught rather than cultivated. Generally, the method chosen will be the one that produces the highest yields at the lowest cost. Increasingly, as energy costs assume more and more significance, culturists will choose the system that makes the most use of available energy subsidies, whether they be for temperature control, waste removal, aeration, or feed.

There are aquaculture methods that are only slightly less intensive than basement aquaculture and other closed systems. Many of the most profitable aquaculture enterprises in America have been relatively intensive. These enterprises, which are geared toward producing luxury food rather than cheap protein, include trout (primarily in Idaho), abalone (cultured in California), shrimp, and lobsters.

The other extreme in aquaculture is extensive culture, farming that requires minimal control over the growing environment. Ocean ranching is a good example. Salmon hatcheries on our northeastern and northwestern coasts release millions of juveniles each year that are subsequently harvested by commercial and sport fisheries. Unfortunately, ocean ranching is only appropriate for a very few species with specific life histories and behavior. Salmon are among the few species that return to hatchery waters to spawn.

One extension of ocean ranching that is appropriate for a wider variety of species is the release of juveniles to a partial-

### Characteristics of Aquaculture Systems

| Type                         | Yield<br>(lb/acre) | Gross<br>Energy Use<br>(ton oil/<br>ton fish) | Labor<br>(workdays/ton) |
|------------------------------|--------------------|---|-------------------------|
| Fishing                      | 1-10               | 0.1-1   |                         |
| Parcs (pens)                 | 1,000-10,000       | 0.05  | 100                     |
| Ponds-unfed,<br>unfertilized | 100-500            | 0.01-0.1                                      | 100-150                 |
| Ponds-ferti-<br>lized        | 500-1,000          | 0.2   | 50-100                  |
| Ponds-fed                    | 1,000-10,000       | 1-10  | 5-20                    |
| Raceways                     | 10,000-100,000     | 1-20  | < 20                    |
| Closed<br>Systems            | > 100,000          | > 10  | > 10                    |

Data from Edwardson, W. 1976. Energy Demands of Aquaculture. *Fish Farming International* 3(4):10-13.

ly-enclosed environment that receives some management. Known as *parc* culture, this system was initially developed to culture oysters in Brittany's tidal flats. It is now being used in many American shellfish beds. For mobile organisms, such as Philippine milkfish, gates can be used to retain the fish population. Another method is raft culture. In Damariscotta, Maine, Ed Meyers is able to produce mussels for less than 20¢ a pound by suspending them from rafts anchored in the middle of an unpolluted estuary. Cage culture is another slightly more intensive variation. The cultured animals, such as Japanese yellowtails, are enclosed in either plastic mesh or bamboo cages secured in a large body of natural water.

Ponds have been, and still are, the basic aquaculture unit throughout the world. Pond systems range from the subsistence tilapia/carp polyculture of Africa to the rather intensive catfish farms in America. To enhance food production by aquatic plants, the natural fertility of the pond is often increased by adding manure or chemical fertilizers. Other pond farmers supplement the pond's natural food production with pelleted feeds. This type of aquaculture, mid-way between extensive and intensive culture, is likely to remain the most widely-used system. It incorporates some of the advantages of each extreme. Pond culture provides a controlled growing environment from which fish can be easily harvested. It also is able to benefit from some natural energy subsidies. Many ponds have natural inlets and outlets that provide for the natural flushing of wastes. Ponds also benefit from sunlight for the growing of food and from the natural aeration and circulation of water caused by the wind.

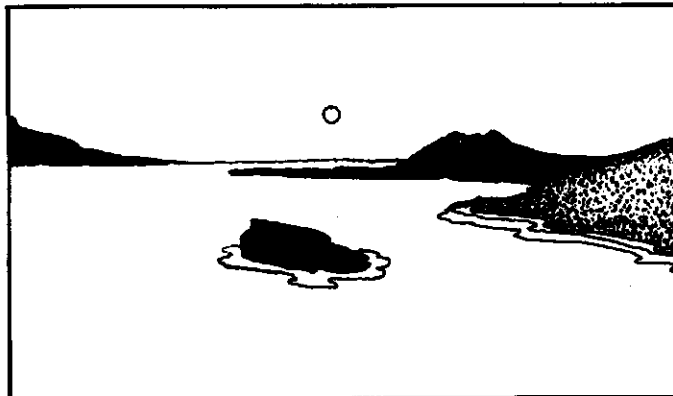
## Can Aquaculture Provide Cheap Protein?

A preliminary analysis of aquaculture's potential might give one cause for hope, since the concept of controlled fish production seems so logical. If fish are cultivated close to their market, energy and transportation costs can be cut significantly. If closed environments, such as ponds and cages, can keep densities high and keep predators out, then yields will soar. It seems logical that harvesting from an enclosed space would be more efficient, quicker, and cheaper than traditional fishing.

Unfortunately, aquaculture systems have costs that are not incurred in simple ocean or fresh water fishing. Start-up costs for building the cages, rafts, and ponds are often substantial. When fish are cultured in relatively closed systems, they must be fed. This makes it impossible for intensive systems to be net protein producers. Supplemental feed for catfish or carp ponds accounts for one-third to two-thirds of those systems' energy demands. Even for herbivores like Tilapia or shellfish, which can live on algae, quite a bit of energy can be expended to produce water conditions favorable for algae growth.

Another problem is the build-up of waste water due to high stocking densities. The decomposition of wastes can lower the dissolved oxygen levels and raise the dissolved ammonia levels. The less oxygen in the water, the more slowly the fish will grow and the less profitable the business will be. Too much ammonia in the water will also retard growth. Large changes in either of these water quality parameters can cause massive fish kills. Closed systems, such as the one that failed in Washington DC, must aerate and filter the water if high yields are to be achieved. And once a fish farmer is forced to pump or to heat a lot of water, energy costs grow faster than the fish.

For example, pumping costs to run the two 2KW pumps needed for a 3200 cubic foot intensive carp tank at the Max Planck Institute in Germany approached 40¢ (at 5¢/KWH) per pound of fish. Even simple aeration can cost 5-10¢ per pound of fish. Knowledgeable fish farmers orient their ponds perpendicular to the prevailing winds to facilitate natural aeration. The use of such natural energy subsidies will become imperative as energy costs continue to rise.



Some of the less intensive systems can also benefit from these natural subsidies. *Parc* and raft culture systems depend upon tidal or riverine flushing that keeps the water circulating, thus preventing waste water build-up. Rainbow trout farming takes advantage of the flow of pure, fresh water from unpolluted rivers and streams to flush away wastes quickly. This enables extremely high densities of trout to be cultivated in naturally-flushed concrete enclosures, making harvesting easy and profitable. Intensive systems, on the other hand, require expensive circulation systems and considerable energy expenditures to solve the waste water problem.

## New Developments

It is premature to evaluate aquaculture's potential as a community food or income source in either rural or urban areas. Many of the systems that we have mentioned are still in the developmental stages. Dr. W. O. McLarney of the New Alchemy Institute is experimenting with cage culture in farm ponds, hoping to utilize the energy subsidy of wind-driven water circulating in the ponds, while reducing the resources needed for harvesting by enclosing the growing fish in cages. Rodale Resources Division has also recently formed a farm pond department. Its first goal is to develop energy-efficient ways of oxygenating pond water. Fish farmers are beginning to realize that they can increase their yields dramatically by using Asian polyculture methods to grow a combination of ecologically-efficient animals in the same pond rather than one fish type per pond as has been the American tradition.

These innovations may make both community and individual fish farming more practical and less expensive. As the industry stands now, this much of a generalization can be made: more extensive systems have generally proven more suitable for small-scale self-sufficient production than have intensive systems. The capital investment required to start most intensive systems suggests that a corporate or large neighborhood scale would be more suitable. A good indication that this is true is the current pattern of corporate development of high-price products in closed systems.

*continued on p. 15*

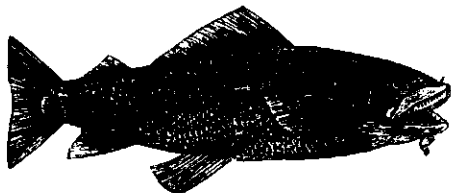
# Resources

## Aquaculture:

### Agricultural Experiment Station

Auburn University, Auburn AL 36830.

Many states are involved in raising fish in ponds, either as an extension of the state Fish and Wildlife Department or as part of a university agricultural station. Much of the best work has come from Auburn and from its former director, H. S. Swingle. The station's staff continues to do innovative work on small-scale and energy-efficient aquaculture. A list of their reprints is available on request. If you are interested in what your state is doing in aquaculture, contact your local Fish and Wildlife Department agent.



### Groton Bioindustries Development Company

Box 517, Groton MA 01450.

Dr. Harold Webber of Groton Bioindustries is one of the chief corporate pioneers of aquaculture ecosystem management. The company's current projects include shrimp farming and the polyculture of Java tilapia and channel catfish in Central America. Although the company is a good example of an enterprise that exploits cheap Third World labor, its innovations in the less energy-intensive forms of aquaculture can be transformed and transferred.

### Environmental Systems Laboratory

Woods Hole Oceanographic Institute, Woods Hole MA 02543.

Every coastal state, including those bordering the Great Lakes, has funding from the National Oceanic and Atmospheric Administration for applied research through Sea Grant. Funding of aquaculture projects has been popular recently. One of the better known projects is the

Environmental Systems Lab at Woods Hole. Directed by Dr. J. H. Ryther, the lab's initial focus was on the recycling of treated sewage to grow phytoplankton, which are unicellular marine plants, for feeding shellfish. The project has expanded and now investigates the growing of lobsters and algae and the potential for using the heated effluent from power plants to warm the fishes' growing environment. A review of the various Sea Grant projects has been compiled by: Delaware Sea Grant Office, Marine Sciences Division, University of Delaware, Newark DE 19711.

### Lummi Indian Aquaculture Project

Bellingham WA 98225.

The Lummi Indian project is the most advanced program using aquaculture as a means of spurring community economic development. The system uses hatcheries, grow-out ponds, and careful selective breeding. Last year, the salmon and trout hatcheries produced about five million fingerlings. Large-scale marketing through their outlet in Seattle is an important part of the program, as is the education of community members in all aspects of fish farming. It is predicted that the project's annual payroll will stabilize at \$1.5 million.

### New Alchemy Institute

Box 432, Woods Hole MA 02543.

The New Alchemists have been experimenting with aquaculture for some time as part of a total bioshelter. Under the direction of a recognized expert, Dr. W. O. McLarney, they have focused on the closed system cultivation of tilapia and on the cage cultivation of native fish in local ponds. The work is highly experimental. Results are published in the annual *Journal of the New Alchemists*, which is available from the New Alchemists for \$6.00.

### The Oceanic Institute

Makapuu Point, Waimanalo HI 96795.

The Oceanic Institute, which will soon move its headquarters to Manila in the Philippines, is a research group con-

cerned with the international development of aquaculture in the Third World. The Institute is presently developing low-technology hatchery techniques for some commonly cultured species.

## Publications:

JE Bardach, JH Ryther, and  
WO McLarney

### Aquaculture

Wiley-Interscience, 1972. 866 pp.

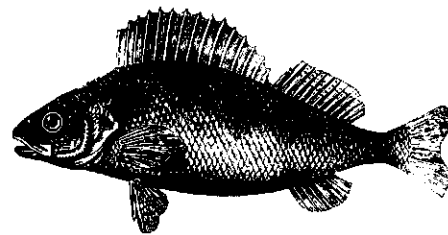
The most comprehensive treatment of worldwide aquaculture in any one volume. Somewhat encyclopedic, but not overly technical.

Marilyn Chakroff

### Freshwater Fish Pond Culture and Management

VITA, 1976. 191 pp.

A Peace Corps training manual that explains in simple terms how to go about growing and preserving fish. Available from VITA, 3706 Rhode Island Avenue, Mt. Rainier MD 20822.



Marcel Huet

### Textbook of Fish Culture

Fishing News (Books) Ltd. of London, 1970. 436 pp.

The bible for the freshwater fish farmer, this book is especially strong on pond culture and on disease. Published in 1970, it does not cover most recent developments.

### Commercial Fish Farmer and Aquaculture News

Box 631, Penacook NH 03301. Monthly, \$10/year.

This is the major trade publication for American fish farmers. Although the focus is on Southern catfish and Western trout, *CFFAN* covers all aspects of aquaculture.

# Can States and Cities Go into Business?

Sovereignty is the supreme authority in a political society. The sovereign power has the final say over what government can and cannot do. In monarchies, the King is sovereign, as Louis XIV of France summarized succinctly when he declared: "The state, it is me." In the United States, the people are sovereign. As the Declaration of Independence asserts: "governments derive their just powers from the consent of the governed." How is this sovereignty exercised in practice? Legally, all rights of sovereignty that were not delegated to the federal government by the states are reserved by the citizens of the states or are vested by the states in their local governments. Thus, although the federal government appears to be all-pervasive in today's society, an important reservoir of ultimate power legally rests with state governments.



This basic lesson in American government is not just idle theory. Its implications are important, especially with respect to public ownership. States can act in either a governmental or proprietary capacity—that is, they can own as well as govern—and there is nothing in the Constitution that prohibits the states from exercising their largely-dormant proprietary rights. Conceptually, a state could organize itself to pursue any extent of public ownership, just as a private individual or corporation can (subject only, of course, to the constitutional restrictions of due process and just compensation).

In fact, when the populist movement was cresting prior to World War I, several state governments took strong steps toward establishing public ownership of businesses. In the Midwest, thousands of farmers were having their mortgages foreclosed and were being dispossessed by New York banks that had granted them loans. The economies of several states were in crisis. North Dakota responded to this crisis by starting a state bank, engaging in the manufacture and marketing of farm products, operating grain elevators, and building homes for its citizens. Nebraska went into the business of owning filling stations.

At that time, states chose to provide for their residents' economic needs by moving into business. Now, as economic stagnation spreads across the older industrial centers, as runaway multinational corporations are abandoning these areas, leaving behind a truncated economic shell to support minorities, the elderly, and the rest of the urban poor, it is time to

review these earlier efforts and then to examine the full extent of state and municipal proprietary rights.

Perhaps one of the most far-reaching decisions on state sovereignty was handed down by the First Circuit United States Court of Appeals in the 1946 case of *People of Puerto Rico v. Eastern Sugar Assoc.*, 156 F. 2nd 316 (1st Cir. 1946). The Puerto Rican legislature, reacting to the hardships caused Puerto Ricans by the concentration of landholding among sugar companies and large banking interests, had passed a statute providing for the break-up of extensive landholding by the power of eminent domain. The sugar companies sued to overturn the legislation, claiming that the government's seizure of land would be a violation of their constitutional right to property. The Court of Appeals sided with the people of Puerto Rico. Because the legislature had passed a statute declaring the purpose of the confiscation as a public one, the court had no choice but to uphold the legality of the statute.

## What about Local Governments?

Municipalities—cities, towns, villages, and the like—are corporations chartered by the state. Municipalities possess only as much sovereignty as they are specifically granted by the state in which they are located. However, states can grant proprietary powers to municipalities through state constitutional amendments, as both Oklahoma and Arizona have done. Moreover, since proprietary functions have been held to be more "local" than are such general governmental functions as traffic and health, a municipality's authority to own a business may well be upheld by the courts. Courts have already decided that city-owned businesses may engage in commerce beyond city limits if they are so authorized by statute. For example, local governments in Michigan can buy property and provide housing in Florida for their older citizens. An early Ohio decision permitted a city to own a railroad that operated outside the municipal limits.

In the Nineteenth century, critics labelled municipal attempts to undertake the supply of water and gas to their citizens "gas and water socialism." Yet these efforts eventually became accepted municipal activities. In the early 1900's,

## New Directions in Tax Reform

This article is a revised version of an earlier piece written by Peter Noterman for the excellent sourcebook, *New Directions in State and Local Tax Reform*, a publication of the Conference on Alternative State and Local Public Policies. The four-hundred page book is available for \$6.50 from: The Conference, 1901 Q Street NW, Washington DC 20009.



several municipalities owned other types of businesses, usually providing specific services to the city or its residents. Boston owned a printing plant. The town of Brookings, South Dakota, owned its own telephone system. In Cincinnati, the city owned public baths, ice plants, laundries, movie houses, municipal markets, newspapers, and houses. Today, municipalities still own a variety of enterprises. Visalia, California, for example, owns a baseball team. Twelve cities own cable television systems. In Milwaukee, the city produces and markets Milorganite, a soil amendment made from the city's sewage waste. And, of course, almost two thousand municipalities own utility companies.

## Acquisition for Public Purpose

Once it has the authority to engage in business, a state or municipality can acquire an enterprise either by purchase or by the right of eminent domain. If the power of eminent domain is used, the state or city must demonstrate that the purpose is a public one. Also, if tax revenues are used to acquire or to continue the operation of a business, the public purpose test must be met. It is crucial that governments be able to justify the public purpose, for it is this issue that is legally determinative. The critical judicial test will be fought at the state level. The United States Supreme Court has never declared a use to be private that a state legislature and state court have declared public.

What qualifies as being a "public purpose?" The judicial interpretation of this concept has developed along two separate lines: generalized advantage to the public and actual use by the public. The latter, which covers actual physical use, such as highways, parks, electricity, and water, is the more specific. The former justifies public ownership for the public purpose of promoting the general welfare and prosperity of state citizens. The doctrine has been used most often to justify the development of state resources that are not being adequately developed by the private sector, such as mining and agriculture. Recently, states have invoked this doctrine to justify the construction and sale of factories to attract private industry.

Needless to say, if either doctrine were pushed to its logical extreme, the courts probably would not uphold the legislation. Almost any legitimate business that a state could engage in could be considered to be to the general public advantage; and public use could include such traditionally private businesses as hotels and restaurants. If, however, the legislation were based upon a specific constitutional provision, the courts would most likely uphold the legislation.

## State Authority to Engage in Business

Because of the traditional American bias against government operation of business that is reflected in the thinking of many conservative judges, courts will demand a clear indication of a state's authority to own an enterprise. This can be accomplished in two ways. A state constitutional amendment can be passed that would authorize the state or its municipal corporations to engage in business, especially if the amendment is stated in terms of fulfilling a specified public purpose. Or, even without a constitutional amendment, a legislative effort may suffice. A statute authorizing state ownership of a business passed in order to meet a local emergency or unusual situation would probably be given great deference by the state courts, especially if such legislation were limited in

## Justice Brandeis Speaks . . .

*In several Supreme Court decisions, Justice Brandeis spoke out for the right of states to engage in business and to design an economic system responsive to citizens' needs. These are two of his statements.*

There must be power in the States and the Nation to remold, through experimentation, our economic practices and institutions to meet changing social and economic needs. . . . It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory, and try novel social and economic experiments without risk to the rest of the country. *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) Brandeis dissenting.

## . . . on State Economic Powers

The State's power to apply discriminatory taxation as a means of preventing domination of intrastate commerce by capitalistic corporations is not conditioned upon the existence of economic need. It flows from the broader rights of Americans to preserve, and to establish from time to time, such institutions, social and economic, as seem to them desirable; and, likewise, to end those which they deem undesirable. The State might, if conditions warranted, subject giant corporations to a control similar to that now exerted over private utility companies. Or, citizens of Florida might conceivably escape from the domination of giant corporations by having the State engage in business. *Liggett Co. v. Lee*, 288 U.S. 517 (1933) Brandeis dissenting in part.

duration and scope.

There is already precedent for both constitutional amendments and legislative statutes. Two states, Arizona and Oklahoma, presently have general constitutional authority to engage in business. Arizona permits state and municipal corporations to engage in industrial pursuits, while Oklahoma grants every municipal corporation the right to engage in business. Other state constitutions have permitted specific businesses. A South Dakota constitutional provision, for example, permitted the state to manufacture, distribute, and sell cement. *Re Opinion of Judges* 180 N.W. 957 (1920).

State statutes authorizing the following enterprises have also been upheld: the purchase and resale of gasoline and oil (Nebraska); the purchase and resale of coal and wood as fuel (Maine); a general grain elevator business (Montana); a general banking business, manufacturing and marketing farm products, a grain elevator business, and building homes (North Dakota); a warehouse system for storing cotton (South Carolina); and a shell and limestone grinding business (Virginia).

## Conclusion

This article is only a beginning. More research must be done on the various home rule statutes so that cities in each state can know the extent of their proprietary rights. More research must be done to unearth relevant precedents. And more work on the fate of various experiments in public ownership is also needed.

*continued on p. 15*

# Progress Reports

---

## Local Initiative

---

**The Community Energy Corporation** has received initial start-up funding from the city of Hartford, Connecticut. The corporation, which is now in the process of gearing up for operation, is a private, non-profit organization that has been formed to work on energy conservation efforts in public and private buildings and to create jobs for Hartford residents. Although the corporation had originally planned to use CETA-paid employees to do the actual weatherization work, problems with CETA overhead stipulations being too low led to the scrapping of that plan. The corporation may choose to subcontract the actual hands-on work. Hartford is the first city in the country to launch a program of this kind, but it will not be alone. Both Boston and the state of Massachusetts are seriously considering similar endeavors. For more information, contact: Community Energy Corporation, 153 Walnut Street, Hartford CT 06120.

**The Foundation for Alternatives** is an English organization involved in stimulating and assisting self-help groups and small-scale enterprises. Members provide technical assistance in a number of areas, including housing. Two self-build groups and two housing cooperatives associated with the Foundation are in varying stages of development. The Downsview Self-Build Housing Association has completed five of the twelve homes on which it has begun work. The Toothill Cooperative, a management cooperative for single persons, has already lined up a site and financing for its buildings. Planning and design of the seventy-one Toothill units has been undertaken by a development committee of local singles working closely with an architect. Perhaps the most interesting Foundation project is the Poplar West Housing Cooperative, a combined self-build and management co-op formed in the East End of London from a squatters' co-op that started in 1974. The group has

finished renovating one large house into apartments. They plan to expand in the coming year by taking over a large sub-standard block of flats that the Greater London Council has promised on license. For more information on their various projects, contact: Foundation for Alternatives, The Rookery, Adderbury, Nr. Banbury, Oxfordshire, England.

Two years after local government officials announced plans to construct a \$48.5 million high-technology resource recovery plant in Syracuse, New York, **local residents have won their battle** to stop the plant. Together with the Syracuse People's Housing Coalition, a neighborhood group calling itself "Don't Dump on Us" publicized citizens' opposition to the plant. A quasi-official advisory neighborhood referendum sponsored by the Democratic Caucus made it clear how neighborhood residents felt: half the registered voters turned out and, while 965 voted against the garbage plant, only 14 voted in favor of it. Several city officials visited a garbage-burning steam plant in Chicago and reported on the nauseating odors, the dust in the air, the rodent infestation, and the storage problem that they witnessed. When the decision went to the City Council and the County Legislature, both voted to kill the project. *Network*, June 1977.

---

## Access to Information

---

The Community Energy Bank is a **non-monetary exchange system in Oregon**, serving the city of Eugene. Since its opening on May 25, the Bank has attracted over two hundred members. An initial grant of \$276 got the project off the ground. Now, funding comes from voluntary 50¢ per month membership dues and from contributions. There is no paid staff: members are asked to volunteer a half hour per month to the Bank. The Community Energy Bank functions differently than APPLE (see next paragraph) in Portland. Direct trading of skills, serv-

ices, instruction, or products between two members is only one method of participation. The Bank's credit hour accounting system operates on a credit-debit basis. By using someone else's service, you rack up a debit that will be paid off when your own services are used. In this way, you can benefit from people's skills or services even if they have no particular need for yours. Directory categories of the hundreds of services range from "spiritual awareness" through "business, finance and organizations" to "animals" and "green thumb." For more information, contact: Community Energy Bank, 454 Willamette, Eugene OR 97401.

**APPLE (A Person to Person Learning Experience)** is a new skills exchange service for the Northwest section of Portland. With initial funding from the National Self-Help Resource Center and a work-study staffer from Portland State University, APPLE hopes to enable residents utilize their skills and abilities as a way of increasing neighborhood sharing and wealth. APPLE members fill out a form detailing their skills and interests. Volunteers then try to match skills and needs with those of other members. Once the match is made, the two members work out their own terms. Trading, bartering, or, in some cases, charging a fee are all possible. The skills listed on the form are similar to those of the Community Energy Bank in Eugene: sports, fix-it, spiritual awareness, health, domestic services, communications, business, arts and crafts, construction, agriculture, and gardening. For more information, write to: Scott McConnell, APPLE, 817 NW 23rd, Portland OR 97210.

The Dallas Public Library and the North Central Texas Council of Governments (NCTCOG) have developed a **Community Access Tool** that contains data on 4500 organizations and agencies in and around Dallas and approximately 600 other resources in the sixteen-county NCTCOG region. The system, which began in 1968 as a small card file in the library, is available for use by individuals and agencies looking for services and in-



formation. Presently, two-thirds of the users are individuals and the rest are agencies. Users simply go to the library and ask the operator a question. The operator codes the question and types it into the computer. The answer is printed out seconds later. The data compilation consists mainly of non-profit, service-oriented groups and agencies. It also includes places, events, and publications of community interest. For more information, write to: Margaret Warren, Dallas Public Library, 1954 Commerce Street, Dallas TX 75201.

---

## Finance

---

**The Co-operative Fund of New England** has been providing loans to the alternative food network of New England for two years. The Fund, which is financed through long-term loans from individuals, makes start-up and expansion loans to food co-ops, co-op canneries, and cooperative warehouses. Although many of these loans were initially refused by traditional banks, there have been no defaults or problems with repayment from any of the borrowers. In two years, eight loans have been made from an operating fund of over \$60,000. The largest ones have been for \$7500. Loans from the Fund have helped four regional warehouses to get off the ground and have enabled several co-ops and canneries to expand. For a copy of the Fund's two-year report or for information on how to invest in the Fund, write to: The Cooperative Fund of New England, 3 Kent Street, Montpelier VT 05602.

State Treasurer Robert Crane has agreed to set up a **"linked deposit" banking plan** in Massachusetts. His commitment came in response to the report of a Special Commission on State Investment, a group formed under the direction of the Massachusetts Social and Economic Opportunity Council. A linked deposit system makes the deposit of state funds with a bank contingent upon that institution's investment policies. The more support a bank gives to positive programs of

community development, the more state deposits it will receive. About \$100 million in state operating funds will be placed through the linked deposit system. The commission's report has suggested that banks get "points" for loans made: in Massachusetts; in specifically-defined low-income areas; for low-income housing; for small, labor-intensive, community-based or cooperatively-owned in-state businesses; and to Massachusetts cities, towns, and agencies. The higher a bank's score, the more likely it is to receive deposits of state money. The important question remains whether Treasurer Crane will abide by the commission's suggestions. A round of statewide hearings will be held, beginning in October, to take testimony on the proposed system. For more information, contact: Citizens for Participation in Political Action (CPPAX), 11 South Street, Boston MA 02111.

---

## Legislation

---

**The Community Readjustment Act of 1977 (SB 337)**, introduced in the Ohio Senate in July by Democrat Michael Swarzwald, is an innovative attempt to protect employees and communities affected by business closings in the state. The legislation, which has been developed and supported by the Ohio Public Interest Campaign, would require that large corporations planning to close or to move a substantial amount of their operations out of Ohio must: provide two years' advance notice; give affected employees at least one week's severance pay for each year worked; and pay into a community assistance fund so that affected towns and cities have a chance to redevelop their economies. If passed, the act will provide employers and communities with both time to plan for their futures and financial assistance to help them through the hardships of losing jobs through corporate relocations and closings. The Ohio Public Interest Campaign is pursuing an extensive campaign of organizing around the act. For further information, contact: Ohio Public Interest

Campaign, 340 Chester—12th Building, Cleveland OH 44114.

The State of California has recently passed the **largest solar incentive in the nation**. The act allows taxpayers to deduct from their state taxes 55% of the cost of installing their solar system, to a maximum of \$3000. The act also allows an unlimited 25% credit for buildings other than single-family dwellings where solar systems costing in excess of \$6000 are installed. A unique aspect of the law is a "carry over" provision that allows the credit to be taken over several years. In this way, persons with a lower tax liability can still take advantage of the credit. The effect of the tax credit will be to make solar energy competitive with conventional energy sources that are highly subsidized. The act will also spur the solar industry in California, leading to increased energy savings and to more jobs. The final version of the bill contains a compromise provision that stipulates that, if any federal credit legislation passes, the combined state and federal credits cannot exceed 55%. If other states do not follow suit with significant incentives of their own, California could easily become the national leader in solar manufacture and distribution. For more information, contact: SUNRAE (Solar Use Now for Resources and Employment), PO Box 915, Goleta CA 93017.

**The Co-op Bank Bill**, which would establish a National Consumer Cooperative Bank to provide non-farm cooperatives—including health, housing, credit, and other consumer co-ops—with access to financing and technical assistance, barely passed the House earlier this year. The bill now goes to the Senate where it will need strong grassroots support if it is to pass. For more information about the bill and how you can support it, contact: The Cooperative League of the U.S.A., 1828 L Street NW, Washington DC 20036.

**When writing to any of the contacts mentioned in SELF-RELIANCE, please send a self-addressed stamped envelope. It will speed the reply and will save these folks some money.**

# Resources

## Cable Television

In the last issue of SELF-RELIANCE, we carried an article on public access cable television. Due to space limitations, we were unable to include a resource list with the article. In the past four weeks, several subscribers have asked for more information. Our readers, it seems, are not content with what we write. They want to have access to the sources as well. That is fine with us. In fact, that is why we publish SELF-RELIANCE. So, in keeping with our policy, here is a partial list of organizations and publications involved in public access cable television.

### Alternate Media Center

144 Bleecker Street, NY NY 10012.

The Alternate Media Center provides consulting services on non-professional uses of telecommunications. The Center has helped various access groups to get off the ground and has done substantial work with two-way interactive cable systems. Although it does not provide information services for the general public, the Center has published the *Access Workbook* (Volumes I and II), which are technical handbooks for access practitioners. The Center is also the home of the newly-formed National Federation of Local Cable Programmers.

### Cable Handbook 1975-1976

edited by Mary Louise Hollowell, available from Communications Press, 1346 Connecticut Ave NW, Washington DC 20036.

Published in 1976, the *Handbook* is a collection of articles on different aspects of the cable industry. One of the most up-to-date anthologies, this book is a useful resource.

### Cable Television: A Guide for Citizen Action

By Monroe Price and John Wichlein, published by Pilgrim Press Books, Philadelphia, 1972.

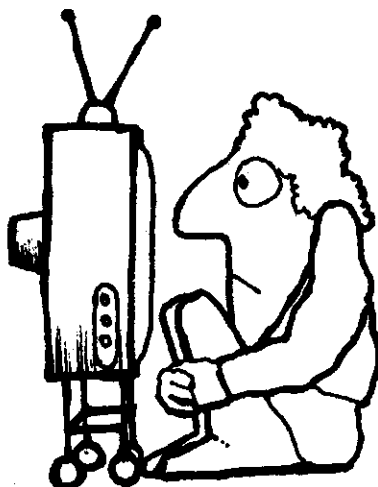
Although somewhat dated (as is much of the literature on cable television), this book is an excellent guide both to cable television's potential for community ac-

cess and to the questions that citizens should ask themselves about this relatively new medium.

### Cable Television Information Center

2100 M Street NW, Washington DC 20036.

CTIC, a project of the Urban Institute, helps local and state governments and the public acquire data and formulate policies and procedures for developing cable in the public interest. Although their publications focus on the concerns of local policymakers, many are useful for anyone seeking to know more about cable television.



### Cable Television: Promise versus Regulatory Performance

House Subcommittee on Communications, available from Television Digest, 1836 Jefferson Place NW, Washington DC 20036.

This report outlines the history of the cable industry, industry trends, and controversies. Recommendations are made concerning the need to regulate the cable industry to ensure that it will serve the public interest.

### National Cable Television Association

918 16th Street NW, Washington DC 20036.

NCTA is the cable industry's national organization. Members, who include both

cable system operators and manufacturers of cable equipment, receive several monthly publications on topics relevant to the industry. NCTA provides legal services and engineering assistance to its members and represents the cable systems' interests on Capitol Hill and before the FCC.

### A Short Course in Cable

Office of Communication, United Church of Christ, 289 Park Avenue South, NY NY 10010.

This fourteen-page pamphlet is a simple introduction to the issues in cable television and to the pressure points available to community groups. It was written in 1974.

### Talk-Back TV: Two Way Cable Television

by Richard Veith, published by Tab Books, Blue Ridge Summit PA 17214.

A clear and concise discussion of the technology involved in two-way interactive cable systems, this book, which is the outgrowth of a 1972 thesis, suffers from the problem of out-of-date examples. But, because of the nature of the industry, almost any book on cable is out of date three years after its publication.

### Televisions

P.O. Box 21068, Washington DC 20009. Quarterly. Individuals, \$10/yr.; institutions, \$15/yr.

Published by the Washington Community Video Center, *Televisions* monitors developments in video hardware and software, in network and cable television, and in just about everything relevant to the video medium and its practitioners. A good tool for the independent video producer.

### Urban Cable Systems

The Mitre Corporation, Westgate Research Park, McLean VA 22101.

A 1972 feasibility study for a Washington DC cable system that was never built, this book discusses technical issues, finances, programming, and other issues that relate specifically to the District of Columbia but also more generally to the problems of urban cable systems.

# In Search of a National Energy Plan

Over the past few months, President Carter's energy plan has been dismantled piece by piece by a hostile Congress. That Congress has no long-term perspective on energy planning is now clear. What must also be noted is that the President's long-term perspective, as demonstrated in his energy plan, was not a whole lot more creative or farsighted.

A national energy plan should have three components. It should present a vision of the future and an explanation of the ethical criteria upon which the plan is based. It should estimate how far we can go toward attaining the vision, in terms of both technology and economics. Finally, it should develop a coherent strategy for encouraging such developments. In other words, a national energy plan should start from a conception of where we would like to be in a given number of years from now and then propose how we can get there.

The Carter plan avoids this strategy. In effect, it avoids the the broad implications of long-range planning. Its only concerns are supply and demand: will energy supply match energy demand? There is little consideration of whether or how demand or supply sources should be shaped in order to meet societal goals. The plan feigns neutrality; but, given the present shortage of capital, there can be no neutrality. Both decentralized and centralized systems are capital intensive per kilowatt hour of power generated. We cannot afford to pursue both options. Whether the administration wants to or not, it must choose sides.

## What Should a National Plan Look Like?

- The primary criteria, from our perspective, should be that the energy system be democratic and that it encourage the participation of the citizenry in both planning and operation.
- A new energy system should place the lightest possible burden on the environment.
- Employment opportunities should be maximized and the jobs created should be safe ones.
- A new energy system should engender a sense of self-reliance, of community, and of self-confidence. Energy should be generated near the point of consumption, that is, right in our communities. Where feasible, systems should be under the control of local residents.
- Decentralized systems should be insulated as much as possible from external pressures. Since reliance upon Exxon is not very different from reliance upon Saudi Arabia, both community and national imports should be lessened.

Based on these considerations, we can begin to envision a future energy system, one that would rely as much as possible on renewable energy technologies—on wind, sunlight, agricultural products, and water. It would be owned, where possible, by users and, where that was not possible, it would be under their direct democratic control.

## What Should Be Done Now?

The arguments in favor of decentralized energy systems have already been presented in several issues of *SELF-RELIANCE*: Richard Grossman of Environmentalists for Full Employment has discussed the employment benefits of decentralized over centralized energy systems (*issue #7*); David Morris has elaborated upon the economics of solar energy (*issue #5*). We will not review this material. Barry Commoner, Amory Lovins, Denis Hayes and many others have also argued the logic of decentralization quite convincingly. In this article, our concern is different: we want to look at what the federal government could do—today—to lead the nation toward energy self-reliance rather than to back us into the corner of energy dependence and environmental danger.

Over the years, the federal government has developed the power to determine the shape of our energy system. That power is economic, regulatory, and political. It is also the power of leadership. It could be used to encourage the creation of a democratic energy system by the implementation of the following specific policy recommendations:

**Recycling:** The purchase of recycled materials should be mandatory for all federal procurements. A substantial national solid waste disposal tax should be enacted and all subsidies for the use of virgin materials should be ended. This would encourage more industrial recycling, which has significant conservation potential. According to Harvard geologist Harvey Brooks, the extraction and processing of raw materials now account for about two-thirds of all U.S. industrial energy use or 25% of all U.S. energy use. The energy required to produce a ton of steel from urban waste is only 14% of that needed to produce the same amount from raw ore. For copper, the figure is about 9% and, for aluminum, only 5%.

**Tax Credits:** The tax credits that will be passed during this session of Congress did not originate with the Carter administration and the administration has not sought to expand them. Although these federal tax credits will be helpful, they pale in significance when compared to the 55%, \$3000 maximum, credit allowed by California (See *Progress Reports*). Unlike the New Mexico and California programs, the present federal tax credit program has no carry-over provision. Yet, taxpayers should be able to spread credits over several years so that persons with lower tax liabilities can still take full advantage of these tax breaks. Without a carry-over provision, any tax credit will favor higher-income citizens.

**Capital Depreciation:** The federal tax code does not permit homeowners to depreciate the capital that they invest in solar equipment. According to the Congressional Office of Technology Assessment (OTA), if homeowners could depreciate their capital investments over a period of three to five years, the effective capital charges would be reduced by one-

third. Solar energy systems are genuine utility systems and should be treated as such. As OTA notes, "Since institutional owners of energy-generating equipment are permitted to depreciate their equipment, the current tax policy forbidding homeowners to do this has the effect, if not the intention, of discriminating against the use of such equipment in the house."

Carter's energy plan does ask states to reduce their taxes on solar systems. Property taxes can add as much as 10-25% to the cost of solar systems. The federal government should use whatever leverage it has to encourage the elimination of these and any other taxes that end up discriminating against the use of solar equipment.

**Procurement:** Procurement is one of the most crucial areas in which the federal government can intervene. The government owns or leases approximately 446,000 buildings in the United States, with a combined floor space of nearly three billion square feet. The cost of heating and cooling these buildings is almost \$1.7 billion annually. A recent OTA report concluded that, at present installation prices, "If 10% of the present heating/cooling costs were capitalized—used for debt payments for the purchase of solar equipment—the Government could purchase nearly 100 million square feet of collectors annually." HUD is paying more than \$575 million this year to the hundreds of thousands of units of public housing administered by subsidized local housing authorities. If this cost were capitalized, again on a 10 per cent basis, the government could support the purchase of another 30 million square feet of collectors annually. What do these figures mean? The present solar energy goals are to install 420 million square feet of collectors by 1985. Yet, if it were a priority, the government could easily purchase over 700 million square feet of collectors for its own buildings at today's prices (\$20 per square foot installed).

**The ERDA Program:** The ERDA (now Department of Energy) solar program should be increased from its present 4% share of the total energy budget. Most importantly, the professional staff in the solar division should be increased. Although the solar budget more than doubled from fiscal year 1976 to fiscal year 1977, the program's professional staff only increased from 45 to 54. As a result of this shortage of contract managers, the staff tends to concentrate on giving out relatively large contracts to large companies for large installations, thereby simplifying the administrative workload.

The current emphasis on centralized systems should be reversed. ERDA has been moving slowly in the direction of supporting small-scale systems. Two years ago, it established an office of small-scale technologies. This year, the agency is beginning to fund research on small wind generators. However, giant applications still prevail and the bulk of solar funding is still going to centralized, large-scale systems.

**Preference to Small Businesses:** Contracts from ERDA should favor small businesses. Studies have shown that small companies are generally more innovative than larger ones, that they tend to be more flexible, and that they generate more product per R & D dollar. In the HUD Cycle Three program, three companies received almost half of all the contract money awarded. ERDA gives out a large percentage of its contracts to the nation's biggest companies. We suggest that 50% of all funding go to small companies. Since solar companies are still small, we recommend that, rather than rely upon the definition of the Small Business Administration (500 or fewer employees, gross sales of \$100 mil-

lion or less), the government should define small solar businesses as those with fewer than 100 employees and gross sales of \$10 million or less. Funding should go directly to small prime sponsors, not to larger firms' subcontractors. Further, a program should be established to provide venture capital or low-interest loan money for new small businesses to ensure that their ideas and products reach the marketplace. To rely on the giants of industry for creative ideas would be a serious mistake.

Finally, contracts should be awarded directly to users with the appropriate government agency acting as the contract manager. This is already being done in the HUD solar programs. ERDA's photovoltaic program is moving in the same direction. Until recently, the government relied upon national laboratories to serve as its management intermediaries, for which the laboratories earned sizeable overhead fees. Not only did this inflate costs; it also discouraged innovative combined systems that would have required the overlapped involvement of several separate divisions at ERDA.

These are just some of the changes that should be made. Were federal policy redirected in this way, the climate for developing small-scale, decentralized energy systems would improve markedly. And the goal of energy self-reliance would be more easily attainable.

## Mobilizing the Citizenry

The federal government could have significant impact in another way: it could mobilize people on the local level to join in the great debate about energy futures and to involve themselves in the creation of democratic energy systems. One simple way to do this would be to issue energy goals that are relevant to local communities. The national energy plan advocates installing solar equipment on 2.5 million homes by 1985. This figure is almost as intelligible to the average citizen as is the knowledge that the GNP is 1.7 trillion dollars. Yet, simple arithmetic can bring the statistics down to manageable proportions.

To keep up with the national energy plan, a town of 100,000 people, for example, would need 952 solar hot water systems (57,120 square feet of collectors) by 1985. Assuming a 30% annual increase in solar installations, this means that a neighborhood of 30,000 would have a 1978 goal of equipping 15 homes. A block of 50 homes would meet its 1978 goal by installing one system.

These more intelligible goals could become part of a quota system. On both the federal and the local level, government could establish an award program, highlighting those communities that met or surpassed their goals. One can imagine citizens' meetings—possibly centering around energy workshops—in local schools, churches, or libraries, with local residents gathered to determine their own goals. Most likely, their goals would exceed those set by the Carter energy plan.

It is all possible. The government has the power. What it needs now is the vision and the leadership. If the search for new energy sources is to be the "moral equivalent of war," we must, as a nation, be clear as to where the battlelines are drawn—and as to which side the government is on. Decentralized energy systems can be the supply source of the future, but that future depends in no small part upon the energy policies of the federal government and upon the degree of pressure exerted upon the government by citizens' groups that believe that the national energy system should be democratic and locally-controlled.

—David Morris

# ● New Legislation Gives Credit Unions a Boost

It is time to change the way we look at credit unions. Since the end of World War II, credit unions have experienced rapid growth. They are no longer simply a convenient service provided by employers for their workers or by churches for their parishioners (see box). Credit unions are the fastest growing financial institution in the country. At the end of 1976, over 33.6 million Americans were members of credit unions. The 22,618 credit unions scattered across the country held \$44.8 billion in assets. Last year, credit union loans accounted for 17% of all short- and intermediate-length consumer installment loans. As assets continue to increase and as more neighborhood credit unions are created, we must consider seriously the role that credit unions can play in community economic development.\*

## The Past

Over the years, credit unions have found a special niche for themselves in the world of finance. They have, until quite recently, claimed consumer loans as their turf, preferring not to compete with the powerful commercial banking interests. When credit unions were struggling for state and federal recognition, they feared that setting themselves up as competitors to commercial banks would hurt their chances for obtaining favorable legislation. As a result, both the federal and state laws that have been passed have placed strict restrictions on credit union services and operations.

No federal credit unions, and few state-chartered ones, can provide checking accounts. Until the recent passage of new federal legislation, most real estate loan maturities were not allowed to exceed ten years. The maturity for most other types of loans had been set at five years. Acceptable types of loan security and liabilities are still greatly restricted.

As a result, credit unions have used only a small percentage of their assets for other than consumer loans. Few home purchasers or entrepreneurs are eager to pay back their mortgages or capital investments in a short period when longer-term loans are readily available elsewhere. Because of the restrictions placed on credit unions, these borrowers have looked to savings and loan associations and commercial banks for long-term credit.

A 1976 sampling of federal credit unions by the National Credit Union Administration revealed that over 47% of the money loaned that year was used to purchase cars and other durable goods. Personal, household, and family expenses accounted for 31.5% of the total amount loaned. Only 11.1%

went into residential repair or modernization. Six percent was used for real estate purchases and a meager 3.6% of the amount loaned was used for business purposes.

## Public Law 95-22 Promises Change

As lenders of small, short-term loans, credit unions do have a positive impact upon the communities in which they are located, particularly in areas where affordable credit is difficult to obtain. That impact, however, has been limited because of the restricted powers of credit unions. Now, the passage of Public Law 95-22, which amends the 1934 Federal Credit Union Act, has opened the way for change. Credit unions, owned by the people they serve and directly responsible to them, can now begin to expand the services they offer and, as a result, to attract more deposits.

The most significant change is this: instead of being limited

### What are credit unions?

Credit unions are cooperative financial associations. As at a bank, members make deposits and receive annual dividends on their investments. What makes a credit union different is that assets are loaned only to members, who pay no more than 12% annual interest on the unpaid balance, all fees included. Members, who make their deposits in the form of purchasing shares, elect the Board of Directors and the credit committee, which reviews loan applications.

Credit unions, whether chartered by a state agency or by the federal National Credit Union Administration, must be composed of members who have a shared interest or "common bond." There are three commonly recognized types of common bond:

- **Occupational:** Workers in the same occupation or employees of the same business or agency. In 1976, 10,354 credit unions, nearly 89% of those federally chartered, were occupational, including many of the nation's largest credit unions.

- **Associational:** Members of the same association or church. In 1976, 1,099 (7.5%) of the federally-chartered credit unions were based on association membership. Ironically, with the notable exception of Michigan, regulatory officials in most states do not feel that membership in a food co-op or other cooperative constitutes a strong enough "common bond" for chartering.

- **Residential:** People living within the same neighborhood, community, or rural area. Although only 504 (3.5%) of the federally-chartered credit unions were residential in 1976, these are becoming increasingly popular. Last year, their number increased by 16.3%.

\*Both the federal government and the 43 states that have enabling legislation can charter credit unions. Federally-chartered credit unions are overseen and insured by the National Credit Union Administration, while state-chartered ones are overseen by the appropriate state agency. Although the new federal law applies only to federally-chartered credit unions, most states tend to follow federal guidelines on credit union powers.

to granting short-term mortgage loans, federal credit unions can now make real estate loans with maturities of up to thirty years and mobile home and improvement loans with maturities of up to fifteen years. These provisions enable federal credit unions to enter the mortgage market on a competitive basis for the first time. As a result, neighborhood-based credit unions will be able to have a greater impact against redlining by local commercial banks and savings and loan associations.

---

## **Federally-chartered credit unions can now make real estate loans with maturities of up to thirty years.**

---

Under the new act, ordinary personal loans, whether they are secured or unsecured, can have maturities of up to twelve years. By allowing individuals a longer payback period on their loans, this provision makes credit unions a more attractive source of credit and eases the burden on borrowers. The new law eliminates the previous \$2500 upper limit on unsecured loans, making it easier for low-income members to take out a loan. By making credit unions more attractive sources of credit, the law also makes them more attractive savings depositories. And the more assets a credit union has, the greater its ability to provide needed credit.

There are other provisions in the law that strengthen the competitive position of credit unions. By allowing one credit union to buy another outright and by allowing varying interest rates for different loans, neither of which was permissible before the new law, PL 95-22 improves the liquidity and flexibility of credit unions.

## **A Spur to Community Economic Development**

The credit union legislation could have a particularly important impact upon community-based credit unions that consider local economic development and the physical improvement of members' neighborhoods as a high priority. These credit unions will now be able to use their members' assets to finance housing renovations and, if enough new assets are generated, to make loans to local small businesses.

Using credit unions to spur local economic development is not a new idea. During the Sixties, credit unions were supposed to be one of the major weapons in the War on Poverty. The Office of Economic Opportunity started approximately 500 neighborhood-based credit unions, primarily in inner-city areas, during that era. For years, these credit unions, which were associated with and often run by OEO-sponsored community action programs, received federal subsidies. Although expectations were high, the experiment was an almost total disaster. Most of the credit unions either failed outright or experienced no growth. The impact upon the areas they were formed to serve was negligible. These failures were not so much caused by federal restrictions on the credit unions' powers as they were by poor management, inadequate employee training, the cut-off of OEO funds in 1972, and, most importantly, the fact that, in most cases, community residents actually had very little input into the organizations' policies and agendas. Feeling that the credit union was imposed from outside, local residents had little trust in the institution and little incentive to invest. Credit unions were OEO's projects; they did not belong to local residents.

## **Can Credit Unions Leverage Enough Money?**

Credit unions in low-income neighborhoods need not suffer the fate of OEO-sponsored institutions. Yet, even if they do survive and prosper, it is still unclear how much effect they can have on local economic development. Despite their increased powers and despite their legal right to attract depositories by offering up to 7% interest, low-income credit unions may be unable to accumulate enough savings from individuals to play a significant role in community development.

There are some indications that this evaluation is overly pessimistic. The National Center for Urban Ethnic Affairs has estimated that the purchases of TV sets, washing machines, and refrigerators made each year by an inner-city area of 10,000 families cost in excess of \$1 million, exclusive of the more than \$200,000 in interest or carrying charges. This estimate does not include many other expenditures of disposable income, such as for automobiles. All communities, even in the inner city, have a certain amount of wealth. The question becomes one of whether credit unions can attract the wealth.

Unlike commercial banks, credit unions are not capitalized before they begin operation. Instead, they must build up their assets through members' savings once they have started business. By law, no federal credit union can lend more than 10% of its unimpaired assets to any one individual. Therefore, until a credit union's assets become fairly large, it is unable to make sizeable loans. Credit unions are often initially caught in a vicious circle: in order to attract more assets, they must be able to make larger loans of longer term; but in order to make those loans, they need more assets.

For many credit unions in low-income areas, it is difficult to leverage enough assets solely from neighborhood residents' savings. There may be enough savings in the community, but many credit unions have not been able to attract enough of it to sustain growth. To address this problem, the National Credit Union Administration, with assistance from the National Center for Urban Ethnic Affairs, has established a program whereby credit unions whose members meet certain income restrictions or are qualified to participate in a community action program can be declared Community Development Credit Unions (CDCU's). This designation allows credit unions to add to their assets by accepting deposits from non-members, including corporations and foundations.

To help funnel funds into CDCU's, the National Center for Urban Ethnic Affairs ran a two-year experimental project beginning in 1974 that was designed to help CDCU's improve their managerial capabilities and to assess the impact of non-members deposits upon CDCU's. In a two-year period, NCUEA moved over \$1.5 million of non-member deposits into five CDCU's (one of which subsequently withdrew from the project), and provided managerial assistance to their staffs and directors. As a result, all but one of the credit unions realized a substantial growth in both savings and loans; and the one participating credit union that has not experienced growth has been able to reduce its loan delinquency rate from 60% to 9%.

The Amigos Unidos Federal Credit Union in San Juan, Texas, a rural credit union originally formed by OEO, was involved in the NCUEA project. Its members, most of whom are low-income farm workers, had refused to allow their credit union to die, despite its increasingly stagnating finances. Before 1974, Amigos Unidos members had an average savings of \$113.82 invested in the institution. Member shares totaled



\$316,080. Since 1968, Amigos Unidos had made a total of 3,379 loans averaging \$399.46 each. Between 1974 and 1976, NCUEA moved \$437,343 of non-member deposits into Amigos Unidos after receiving guarantees from depositors that they would maintain their investments in the credit union for anywhere between one and three years. With these new funds, the credit union was able to make more and larger loans than ever before. Being able to borrow more money from their credit union encouraged members to increase their savings in Amigos Unidos. Membership increased from 2777 to 5390, a 91.4% gain.

Members' average savings share increased by 228.5% to \$373.89. In the two years, Amigos Unidos made 4,899 loans averaging \$701.52 each. The credit union has made expansion loans to several local businesses: a clothing store, a restaurant, a glass company, and a tire shop. It has also made a few business start-up loans in the \$6000-7000 range, including one to a T-shirt company and, most recently, a ten-year loan to a farmer for a small produce packing shed. Juan Lopez, manager of Amigos Unidos, recognizes that, since the NCUEA program ended, the amount of non-member deposits has dropped, but the boost that those deposits gave the credit union has placed the institution on a much firmer financial

footing. Lopez feels that the new law "will enhance the possibility of the credit union's growing further." For Amigos Unidos, the future looks quite different than it did four years ago.

As a result of the success of the NCUEA project, participants have recently formed Alternative Economics, Inc., a non-profit organization designed to continue the work started by NCUEA. Whether organizations such as this will be able to attract and channel substantial outside funds into more than just a handful of credit unions remains to be seen. The problem of insufficient assets still plagues most credit unions in low-income areas. The NCUEA project did prove this much: if low-income credit unions can build up large assets, their members will be able to improve their housing and start new businesses, not just borrow money to buy appliances and automobiles. However, the strategy for raising those assets in every community remains to be developed.

—Virginia Drewry and Richard Kazis

Alternative Economics, Inc., PO Box 29146, Washington DC 20017.

Amigos Unidos Credit Union, PO Box 114, San Juan TX 78589.

National Center for Urban Ethnic Affairs, 1521 16th Street NW, Washington DC 20036.

## Can States and Cities Go into Business? *continued from p. 7*

The move toward public ownership will not be easy, given traditional American biases. However, it is legally possible. Joint ventures with private business, public businesses of limited duration, joint city-and-state, city-and-city, or state-and-state ventures are also possible, since public corporations often have the same powers and flexibility as do private corporations.

When "gas and water socialism" became acceptable, the rationale was that they were "essential services." If "essential" is the test, then food, housing, clothing, and all other necessities of life may someday be considered as logical public businesses—especially if private enterprise is unable to supply these necessities plentifully and inexpensively or to provide jobs for people where they live. Private business

might then be left to produce and market luxury items.

Finally, state and local governments do not have to wait for the last minute—for an emergency—in order to act. And, if they do act, why just bail out the losers of the system, the unprofitable private businesses, such as railroads? Why not take over a profitable subsidiary of a large multinational enterprise? Having done so, the state or city could always decide to reimburse the global corporation's shareholders with stock or bonds of the new public entity, backed by guarantees—and, for disgruntled shareholders, by access to the courts.

—Peter Noterman

*Peter Noterman is a lawyer and an associate of the Institute for Local Self-Reliance.*

## An Aquaculture Primer: The State of the Art *continued from p. 4*

### Aquaculture in the City?

The high yields of closed systems like "fish-in-the-basement" projects are quite appealing, but we need more accurate calculations of start-up costs, price per pound of product, and total energy usage per pound of product. Without natural energy subsidies, these are the weak points of closed systems and make them inappropriate for protein production in our cities. Extensive aquaculture systems make sense from an energy usage perspective, but, without massive purification facilities, these systems, too, cannot work in urban areas. Most cities use their natural energy subsidies of tidal, riverine, and wind flushing to dilute their heavy input of pollution in the form of sewage, industrial wastes, and run-off. Although some groups are investigating the recycling of treated sewage or power plant cooling water for aquaculture projects, these pollutants will often preclude the development of extensive systems of urban aquaculture.

Ponds, then, are presently the best hope for city fish farming. Ponds could take advantage of the energy subsidies of

solar radiation, the higher temperatures of the urban environment, and, perhaps, some circulation of the pond water by the wind. Fallout from air pollution or run-off from streets and pesticide-treated areas could present problems, but the largest challenge will be to develop this medium-intensity system to the point where it can have a significant impact on neighborhood protein production. Advertising will be needed to build consumer acceptance of some products, like mussels and catfish. And energy-efficient filtration and aeration systems must be developed so that stocking densities can be increased to allow an annual production of more than 1/4 pound of fish per square foot of pond. If that happens, then the dream of backyard urban fish ponds, next to the vegetable garden and supplied by neighborhood hatcheries, can become more than a dream.

—Michael Connor

*Michael Connor, formerly with the Institute for Local Self-Reliance, is now a biologist at the Woods Hole Oceanographic Institute, where he is a consultant on ecological problems.*

## Notes

**Growing Without Schooling** is a new newsletter being published by John Holt and his associates. The focus is on ways in which people can learn to do things without having to go through the process of schooling. The editors write: "We will be very interested, as the schools and schools of education do not seem to be, in the act and art of teaching, that is, all the ways in which people, of all ages, in or out of school, can more effectively share information, ideas and skills." The editors hope that the newsletter will evolve into an exchange among readers. Subscriptions are \$10 for six issues. Sample copies of the first issue are available for 50¢. Write to: Holt Associates, 308 Boylston Street, Boston MA 02116.

**Neighborhood Planning Councils** is a new publication from the Institute for Local Self-Reliance. Reprinted from the March-April 1977 issue of *Communities*, this article by Neil Seldman presents the history and development of a city-wide network of community assemblies that fund job skills training and cultural programs for youths—the District of Columbia's Neighborhood Planning Councils. Copies of the article are available from the Institute for 50¢ (includes postage).

**The Decentralist Bookshelf** is a five-page bibliography of books and periodicals that are "designed to permit the interested reader to explore varieties of decentralist thinking." Compiled by the Institute for Liberty and Community, the booklist is available from them for free if you send a self-addressed, stamped envelope with your request. Write to: Institute for Liberty and Community, Concord VT 05824.

**The Office of Appropriate Technology (OAT)** of the State of California has published several helpful bibliographies and articles on the many aspects of appropriate technology. The bibliographies were prepared by the editors of *RAIN* and most of the other publications were written by OAT staff. The entire package is available for \$8.00; publications can also be ordered separately. For a publications list, write to: Office of Appropriate Technology, 1623 10th Street, Sacramento CA 95814.

## Support Self-Reliance

The Institute for Local Self-Reliance is a research and consulting organization that explores the potential for, and the implications of, high-density population areas becoming independent and self-reliant. The Institute, incorporated four years ago as a tax-exempt non-profit organization, conducts basic research; develops working demonstration models of new technologies, institutions and small-scale production systems; develops educational materials; and disseminates information.

The best way to keep up with developments at the Institute and around the country that are relevant to the movement toward urban decentralization is to subscribe to SELF-RELIANCE. The best way to support the Institute is to become an Associate Member.

### 1) Subscribe to SELF-RELIANCE:

A year's subscription (six issues) costs \$6 for individuals and \$12 for institutions, libraries, government agencies and private businesses. Out of U.S., add \$1.50/year for surface mail. U.S. first class, add \$2.00/year. For air mail, add \$2.60/year, North America; \$4.20/year, Central America; \$5.10 year, South America, Europe, Mediterranean Africa; \$5.80/year, Asia, the Pacific, other Africa, USSR.

### 2) Become an Associate Member of the Institute for Local Self-Reliance:

The \$25 annual dues (\$40 for institutions) entitle you to a year's subscription to SELF-RELIANCE and a 20% discount on all Institute publications.

### To our readers

Our readership, it seems, follows the national trend of high mobility. Almost every day, we find out that another subscriber has moved. This creates a serious problem for us. Unless we receive a change of address form from you, you are lost to us as a subscriber. We mail SELF-RELIANCE at a bulk Third Class rate. The Post Office lets us mail each piece for 2.1¢. However, as part of the bargain, they do *not* forward the magazine to a new address. So, if you are going to move, let us know. We don't want to lose you.

On a different subject, we would like to correct what one reader thought was a lack of emphasis on Minneapolis/St. Paul in Virginia Drewry's article on alternative food distribution systems (*Issue #8*). Wayne Clark of Austin, Texas, writes that "there are 17 food stores in the Twin Cities alone, not counting the suburbs. They also have other supporting groups (cafes, a hardware store, an auto collective, etc.) . . . In many respects, Minneapolis/St. Paul is the cutting edge of the new wave co-op movement and deserved as much space as Austin Community Project." (Wayne and the *Co-ops and Social Change Network* have recently moved. The new address is: P.O. Box 4595, Austin TX 78765.)

Self-Reliance  
The Institute for Local Self-Reliance  
1717 18th Street N.W.  
Washington D.C. 20009

Non-Profit Organization  
U.S. Postage  
PAID  
Washington, D.C.  
Permit No. 46663