

THE SOCIO-ECONOMIC IMPACT  
OF  
THE TENNESSEE VALLEY AUTHORITY

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Probably the first question that comes to mind when one hears "TVA" is what exactly is TVA? The Tennessee Valley Authority was established in May 1933 by an act of Congress.

"The Tennessee Valley Authority is a corporation which has specific authorization to manufacture and sell fixed nitrogen fertilizer and fertilizer ingredients; to produce, distribute and sell electrical power; to improve navigatability and to provide for flood control of the Tennessee River; to provide for reforestation and proper use of marginal lands in the Tennessee Valley; to provide for the national defense by the creation of a corporation for the operation of government properties at and near Muscle Shoals in the state of Alabama and for other purposes."

Each of the above mentioned clauses has had a very real social and economic impact on the people of the Tennessee Valley. It is the purpose of this paper to examine these changes and see how the Tennessee Valley Authority helped to modernize this otherwise backwards region. Although the Authority was established in 1933, the motivating purposes behind its establishment go back almost two centuries. In the United States, exploitation and wasting of the natural resources for the benefit of a few had been carried on almost since the first settler set foot on the new world. At the turn of the 20th century, a great awakening took place, and a conservation movement began to grow. People became aware that our vast natural resources were, in fact, becoming rapidly depleted and at an alarming rate. Farmlands were being eroded, forests becoming non-existent, and other varied resources becoming depleted. What gives the Tennessee Valley

"experiment" such importance was not that it was an isolated case, but that the toll of ruin was simply made evident at an earlier date than in other sections of the country.

Nature was very kind to the Valley, in granting to the Valley abundant natural resources, such as forests, soil, water minerals. The Tennessee Valley possesses many natural advantages conducive to rapid growth and sound development for human welfare. The topography is rough and varied and ranges from a wide alluvial valley through rolling hills to very steep mountain slopes. Its elevation is about 300 feet above sea level at the confluence of the Tennessee and Ohio Rivers near Paducah, Kentucky, but the eastern end of the Valley has mountains that rise to a height of 6,500 feet above sea level. This rough terrain coupled with abundant rainfall gives an adequate supply of water power which is the principal resource of the Valley. The river makes a rapid descent from a height of 3,000 feet at its source in the Smokey and Blue Ridge Mountains. Rainfall is heavy, ranging as high as 80 inches in some areas and averaging 51 inches for the entire Valley. The Tennessee Valley is a great river basin draining a territory of 40,600 square miles, and it includes a portion of 7 states: Tennessee, Alabama, Kentucky, North Carolina, Virginia, Georgia and Mississippi.

Water is not the only resource for there is a great diversity of the soil in the Valley. While the soil differs as to productivity and susceptibility to erosion, most of the soil

is suitable for growing a wide variety of crops. The agricultural methods used in the crops raised prior to the establishment of TVA were often such that they destroyed the soil, which was then treated as an inexhaustible mine for quick profits. Heavy rainfall and a region of hills which had been stripped of trees and other natural barriers caused a dangerous leaching of the land.

The great majority of the people of the Tennessee Valley had not been favored by geological formations as had those in the fertile Bluegrass Region of Kentucky. There is a huge rock structure known as "The Cincinnati Arch" which underlies much of the region between the Ohio and Tennessee Rivers. In the dome of this arch, long ages of erosion cut two irregular depressions, washing away layers of rock and exposing lime and phosphate deposits which account for the fertility of the central basin of Tennessee and the Bluegrass of Kentucky. The sides of the central basin which slope upward in a broken circle to form the highland rim were not so fortunate. Even less fortunate is the Cumberland Plateau. There the phosphate is buried under hundreds of feet of sandstone and shale. Unless the soil in these areas is carefully taken care of and conserved, only acid loving, mountain laurel, rhododendron and scrub oak will grow. These plants may add natural beauty to the mountains, but they add very little to the real or potential income of the inhabitants of the region.

The signs of human welfare in the Valley were not encouraging before the establishment of the Tennessee Valley

Authority. The percentage of rural population was 76.8 percent as compared with 43.8 percent for the nation. The standard nutrition was poor, both in quantity and in quality. Educational provisions were among the worst in the nation. The Tennessee Valley Authority surveyed many of the families forced to relocate because of the building of dams and flooding of their farms. This was conducted during the years 1934-1937. The survey had two objectives: to picture the living conditions of people immediately affected by the Authority and to show them the overall socio-economic condition in the area, especially rural areas, in which the Authority would operate. The report presented a graphic picture of low income and little educational attainment of the people which was the result of decades of attempting to eke out a living from soil that had been depleted. Some of the farmers were living on as little as \$399 per year real income and carrying large debt to asset ratios. Housing and household appliances were definitely substandard. Houses were very small; few homes had electricity, and entire rural towns were without a single telephone. Water was obtained from springs, wells and cisterns, and over 90 percent of the families used wash tubs for bathing. Only 1 percent had bathtubs. Education was limited. Few of the adults had completed high school and a significant number had no formal schooling at all. School attendance among children was spasmodic at best. There was little incentive to learn or obtain an education in such communities.

Despite original resources, it is evident that in 1933 the Tennessee Valley was far behind the nation as a whole. Along with the rest of the South, the Valley was regarded by many as the nation's number one economic problem. However, depleted as the Valley was, it was realized that through the use of scientific methods, it could be restored. Silted, precipitous rivers, shallow in some places and deep in others, could be transformed into deep navigatable rivers. New farming methods had been developed to lessen or even avoid soil depletion by diversifying crops. New agricultural equipment had been designed to cultivate the difficult hillsides which made up a very large part of the Valley. If all these things were possible, why had they not been implemented prior to 1933?

For many years, plenty of Valley farmers had realized their plight but were helpless because they lacked the necessary capital to buy equipment, fertilizer and seed for cover crops. "You can't do nothin' when you ain't got nothin' to do nothin' with" was a familiar slogan among families entrapped by their socio-economic condition.

In 1931 President Herbert Hoover stated that "the real development of the resources and industries of the Valley can only be accomplished by the people of the Valley themselves." The people were handicapped by poverty and any comprehensive plan for self-improvement was impossible. The South was poor, not just from the depression of the 1930's, but also from a previous corrosive poverty that destroyed initiative. The need of Valley far-

mers was for encouragement, at least until one foot reached firmer ground. The missing factor was enterprise. Actually, there were a few private companies operating in an uncoordinated fashion trying to develop the region. However, the problems of the Valley were all inclusive not separated by state or county lines and could only be solved by a unified agency capable of grasping the potential possibilities in a coordinated program. Any private enterprise, state or a confederation of states, would only see a limited solution. Any agency undertaking such an awesome task had to be decentralized and yet possess an intimate knowledge of the region.

Thus, the Tennessee Valley Authority was born. On April 10, 1933, President Franklin Roosevelt sent the following message to Congress:

"The continued idleness of the great national investment in the Tennessee Valley leads me to ask the Congress for legislation to enlist this project in the service of the people.

It is clear that the Muscle Shoals development is but a part of the potential public usefulness of the entire Tennessee River. Such use envisioned in its entirety, transcends mere power development. It enters the wide field of flood control, soil erosion, deforestation, elimination from agricultural use of marginal lands and distribution and diversification of industry. In short, this power development of war days leads logically to national planning for a complete watershed involving many states and the future lies in welfare of millions. It touches and gives life to all forms of human concern.

I, therefore, suggest that the Congress pass legislation to create a Tennessee Valley Authority. A corporation clothed with the

power of government but possessed with the flexibility and initiative of private enterprise. It should be charged with the broadest duty of planning for proper use, conservation and development of the natural resources of the Tennessee Valley drainage basin and its adjoining territory for the general, social and economic welfare of the nation.

Many hard lessons have taught us the human waste that results from a lack of planning. Here and there a few wise cities and counties have looked ahead and planned. But our nation has "just grown". It is time to extend planning to a wider field, in this instance, comprehending in one great project many states directly concerned with the basin of one our greatest rivers."

The Tennessee Valley Authority did not come about as a result of the desire of one man. The change in attitude from indifference to "it is our problem, something must be done" had come gradually as the people in government were forced to face the unpleasant physical and economic realities on the Tennessee River. Painful experience had proven that private power interests lacked the will or the financial resources to undertake the development required. It was not advisable to enter into a partnership with private enterprise. Thus, a new policy and a new revolutionary program for federal waterpower and national river control was the only possible solution to a dangerous and deliberate waste of a great resource.

The time was right for action and Senator George S. Norris introduced his eighth Muscle Shoals Bill almost identical to the one vetoed by President Hoover when he tossed the problem back to the Valley in 1931. On April 11, Norris introduced the



measure creating a government corporation to be known as the Tennessee Valley Authority, which would authorize the President to foster "an orderly and proper physical, economic and social development in the Tennessee Valley". On May 17, 1933, the measure became law with the provisions previously stated.

Here was the unity of purpose which the Valley needed, embodied in an organization which was to be operated with a freedom hitherto unknown. Tennessee Valley Authority is, in effect, a public agency in the form of a corporation. In order to accomplish the aims for which it was established, the Authority was given direct executive power to construct dams and reservoirs in the river to provide a 9 foot navigation channel; to operate dams and reservoirs not only to promote navigability and control floods, but to produce electricity to be sold to public bodies and cooperative groups of citizens or farmers organized on a non-profit basis; to make fertilizer and to furnish nitrogen for national defense. But it was the last provision (the provision for economic and social well-being of the people of the Valley) that was the bedrock on which the entire structure of the Tennessee Valley Authority rested and was actually the real and true purpose of the act itself.

How much has the Tennessee Valley Authority accomplished with regard to the socio-economic provisions of the act? To find this, one must turn to some sort of comparative analysis. Industry in the Tennessee Valley expanded more rapidly in the nation as a whole or in the larger Southeast region.

Manufacturing employment increased from 222,000 in 1929 to 486,000 in 1960, a gain of 119 percent as compared to 101 percent in the Southeast and 55 percent in the nation as a whole during the same period. Manufacturing wages and salaries grew from slightly more than 200 million to almost 2 billion from 1929 to 1960, an increase of 108 percent as compared to 720 percent in the Southeast and 443 percent nationwide.

Industry expanded much more rapidly than agriculture in the Tennessee Valley both as a source of employment and of income. In 1930, the Valley region had 4 farmworkers for every factory worker. But by 1960, factory workers outnumbered farmworkers by a margin of almost 2 to 1, and manufacturing was providing almost 3 times the income as contrasted with income produced from agriculture.

In terms of new jobs, the most important growth industries in the Valley region were apparel, food, chemicals, electrical machinery, furniture, primary metals, leather and non-electrical machinery, pulp and paper, and transportation equipment. These 10 groups provided 80 percent of the new jobs created between 1939 and 1958, the years for which detailed industry data were available.

The industrialization pattern differed for the various time periods from 1939 to 1947 (which includes the World War II period). The basic materials industries of chemicals, primary metals and lumber were the leaders in expansion initially. In the postwar period, however, consumer goods industries came to the

fore in terms of new manufacturing jobs and the apparel and foods industries accounted for 50 percent of the employment increase in manufacturing. It is significant to note that expansion in terms of increased production increased rapidly in chemicals, primary metals and rubber products even though employment in these industries showed little or no increase in this latter period. This reflects continued gains and productivity through heavy capital investment and automation.

The geographical distribution of industrial expansion within the Valley region is of special interest to proponents of rural industries and opponents of urbanization. This is because manufacturing activity continued to be concentrated heavily in the urban counties.

Similarly, improvements were achieved in public services to the region by the Tennessee Valley Authority, either directly or as a result of the higher standard of living brought about by TVA. There seems to be no comparative statistics in this area as in industrial development. However, TVA did institute libraries in many places in cooperation with state and local agencies as one-half of Valley counties had no library service at all. The Tennessee Valley Authority virtually eliminated malaria, once prevalent, by draining swamps and by spraying mosquito nesting sites. The Tennessee Valley Authority initiated conferences that lead to the development of adult education programs throughout the Valley. The Authority also, in cooperation with the several land grant institutions in the Valley,

established a number of agriculture experimental stations to aid farmers. In cooperation with the Civilian Conservation Corp (CCC) of the 1930's, the Authority reforested wide areas of the Valley and also established forestry education centers.

Naturally, when reservoirs are formed, recreation facilities are made available for boating, fishing and other outdoor pursuits. To this end, TVA established in 1965 the Land Between the Lakes National Recreation Area, a 380,000-acre area between Lake Barkley and Kentucky Lake in Western Kentucky and Tennessee. It is my belief that the tourism potential that this particular area has is one of the great largely untapped resources in Western Kentucky, and I predict that in future years, the lakes area of Western Kentucky has the potential to truly become the vacation land of America.

The ultimate success of the Authority depended upon the cooperation of the people of the Tennessee Valley. They could not be coerced into an acceptance of this new agency with its almost revolutionary methods of accomplishing its purposes. Essentially, they were conservative, as are many farmers, and the utmost tact was needed in presenting programs for their acceptance. One of the main factors in the expansion of the Tennessee Valley Authority was the policy which educated a rather poor and unsophisticated body of people to the acceptance of new ideas. One of the major areas of importance was stressing upon the people of the Valley the importance of industrialization to the welfare of the region. The idea that industry and agriculture

could work together to rebuild the region was a new idea. This was accomplished and has brought the standard of living in the Tennessee Valley from one of the lowest in the nation to a standard of living at least on a par with the rest of the country.

This paper has not attempted to exhaust the ways in which the Tennessee Valley Authority has had an impact on the people of the Tennessee Valley. However, I do feel that we as residents of the Tennessee Valley either do not know or have a tendency to forget what the Tennessee Valley (Western Kentucky & Christian County) was like prior to the establishment of the Tennessee Valley Authority.

In my opinion, the brightest legacy that has been given to us by the Tennessee Valley Authority is that our area has been made very attractive to industrial prospects by TVA providing cheap power, adequate water, rehabilitated farmland and granted unbounded recreational opportunities. And a corollary to that legacy is that the Tennessee Valley Authority has enabled industry and agricultural to work together within this region for the economic well-being of all concerned now and into the 21st century.