DAVID E. LILIENTHAL

TVA

Democracy on the March

OVERSEAS EDITIONS, INC.

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DEMOCRACY ON THE MARCH

by

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PREFACE

This is a book about tomorrow.

My purpose in writing it today is to try to cut through the fog of uncertainty and confusion about tomorrow that envelops us. The fog is caused largely by words, words without reality in the world as it actually is; to dispel this murkiness we must *see the reality behind the words.*

This book then is about real things and real people: rivers and how to develop them; new factories and new jobs and how they were created; farms and farmers and how they came to prosper and stand on their own. My purpose is to show, by authentic experience in one American region, that to get such new jobs and factories and fertile farms our choice need not be between extremes of "right" and "left," between overcentralized Big-government and a do-nothing policy, between "private enterprise" and "socialism," between an arrogant red-tape-ridden bureaucracy and domination by a few private monopolies. I have tried in these pages to express my confidence that in tested principles of democracy we have ready at hand a philosophy and a set of working tools that, adapted to this machine age, can guide and sustain us in increasing opportunity for individual freedom and well-being.

This confidence that *it can be done,* that the fog, and the fears its shadowy shapes engender, will vanish if we look at the reality and not the words, is based on ten years of experience in the Tennessee Valley in the United States. Here the people and their institutions—among them the regional development corporation known as TVA—have provided just such a demonstration of the vitality of democracy. It is that ten years of actual experience—the background for this book—that reveals the promise and the hope of tomorrow for men everywhere.

I am an administrator and not a professional writer. This book bears the literary marks of that deficiency. I have had to do the writing, moreover, while carrying on my work, often in the midst of those recurrent "crises" that make up the life of any administrator. And I recognize that in writing about the Tennessee Valley Authority I cannot be wholly objective. No one can be so absorbed in this work as for a decade I have been and remain thus passionless about a task so altogether heartening. The reader, then, is warned at the outset that he will find no tone of Olympian neutrality in this book. For this I make no apology, for I believe the world badly needs conviction; it has had too much of a kind of impartiality that is inevitably irresponsible. In this book there are convictions stated and conclusions pressed.

This book does not purport to be a full account of the TVA. Except by way of the briefest inventory, I have not described the engineering and technical aspects of that enterprise nor the effect of the changes in the Tennessee Valley upon the lives of particular individuals, in some ways the most interesting part of the TVA story. There is little in this book on the public power issue, although that has been the center of most controversy about the TVA in the past: for this valley that issue appears to be settled.

What I have set down in this book is a statement of my faith, and the facts and reasons that support it.

I believe men may learn to work in harmony with the forces of nature, neither despoiling what God has given nor helpless to put them to use. I believe in the great potentialities for well-being of the machine and technology and science; and though they do hold a real threat of enslavement and frustration for the human spirit, I believe those dangers can be averted. I believe that through the practice of democracy the world of technology holds out the greatest opportunity in all history for the development of the individual, according to his own talents, aspirations, and willingness to carry the responsibilities of a free man. We have a choice: to use science either for evil or for good. I believe men can make themselves free.

These convictions have been fortified as I have seen them take on substance and become part of the life of this valley and of its people; and it is of this that I write in this book.

The interpretation of the TVA that I have set down is essentially a personal one, for every man necessarily sees his experiences through his own eyes. But in forming the views and ideas written into this book I am deeply in debt to many men and women, and most of all to the people who live in this valley—and that includes of course the men and women of the TVA, associates and co-workers of mine. For this reason I have dedicated the book to them—builders for democracy—farmers, managers, architects, engineers, construction workers, chemists, merchants, accountants, preachers, many different kinds of people—in the spirit of the tablets we have put upon TVA's dams, upon which appear no named hierarchy of Board of Directors or engineers, but simply the legend: "Built for the People of the United States."

D. E. L.

Pine Road
Norris, Tennessee
October 6, 1943

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Chapter 1

ONE VALLEY—AND A THOUSAND

THIS book is being written in the valley of a great American river, the Tennessee. It is about that river, and that valley; about the soil of its farms, the white oak and pine on its mountain slopes, the ores and minerals that lie buried in its hills. It is about the rain that falls so violently upon its fields, and the course the water follows as it seeks out first the streams and then the river itself. This book is about the people of this valley region, the men who work the land, the men who roll the silver sheets of aluminum, who run the cotton gins, and stand behind the counter in the general stores. It is about the women who tend the spindles or stir the kettles or teach the children in the schools.

This is the story of a great change. It is an account of what has happened in this valley in the past ten years, since the Congress of the United States set the Tennessee Valley Authority to the task of developing the resources of this region. It is a tale of a wandering and inconstant river now become a chain of broad and lovely lakes which people enjoy, and on which they can depend, in all seasons, for the movement of the barges of commerce that now nourish their business enterprises. It is a story of how waters once wasted and destructive have been controlled and now work, night and day, creating electric energy to lighten the burden of human drudgery. Here is a tale of fields grown old and barren with the years, which now are vigorous with new fertility, lying green to the sun; of forests that were hacked and despoiled, now protected and refreshed with strong young trees just starting on their slow road to maturity. It is a story of the people and how they have worked to create a new valley.

I write of the Tennessee Valley, but all this could have happened in almost any of a thousand other valleys where rivers run from the hills to the sea. For the valleys of the earth have these things

in common: the waters, the air, the land, the minerals, the forests. In Missouri and in Arkansas, in Brazil and in the Argentine, in China and in India there are just such rivers, rivers flowing through mountain canyons, through canebrake and palmetto, through barren wastes—rivers that in the violence of flood menace the land and the people, then sulk in idleness and drought—rivers all over the world waiting to be controlled by men—the Yangtze, the Ganges, the Ob, the Parana, the Amazon, the Nile. In a thousand valleys in America and the world over there are fields that need to be made strong and productive, land steep and rugged, land flat as a man's hand; on the slopes, forests—and in the hills, minerals—that can be made to yield a better living for people.

And in foreign but no longer distant lands, in the cities and the villages in those thousand valleys, live men of a hundred different tongues and many racial strains. As you move across the boundaries men have drawn upon their maps, you find that their laws are different, as are their courts and passport regulations, and what they use for money. Different too are the words you hear, the color of men's skin, the customs in the home and in the market. But the things the people live by are the same; the soil and the water, the rivers in their valleys, the minerals within the earth. It is upon these everywhere that men must build, in California or Morocco, the Ukraine or Tennessee. These are the things they dig for and hew and process and contrive. These are the foundation of all their hopes for relief from hunger, from cold, from drudgery, for an end to want and constant insecurity. A thousand valleys over the globe and our valley here are in this way the same: everywhere what happens to the land, the forests, and the water determines what happens to the people.

The Tennessee River had always been an idle giant and a destructive one. Today, after ten years of TVA's work, at last its boundless energy works for the people who live in this valley. This is true of but few of the thousands of rivers the world over. But it can be true of many, perhaps most. The job will be begun in our time, can be well along toward fulfillment within the life of men now living. There is almost nothing, however fantastic, that (given competent organization) a team of engineers, scientists,

and administrators cannot do today. Impossible things can be done, are being done in this mid-twentieth century.

Today it is builders and technicians that we turn to: men armed not with the ax, rifle, and bowie knife, but with the Diesel engine, the bulldozer, the giant electric shovel, the retort—and most of all, with an emerging kind of skill, a modern knack of organization and execution. When these men have imagination and faith, they can move mountains; out of their skills they can create new jobs, relieve human drudgery, give new life and fruitfulness to worn-out lands, put yokes upon the streams, and transmute the minerals of the earth and the plants of the field into machines of wizardry to spin out the stuff of a way of life new to this world.

Such are the things that have happened in the Tennessee Valley in the past ten years. Here men and science and organizing skills applied to the resources of waters, land, forests, and minerals have yielded great benefits for the people. And it is just such fruits of technology and resources that people all over the world will, more and more, demand for themselves. That people believe these things can be theirs—this it is that constitutes the real revolution of our time, the dominant political fact of the generation that lies ahead. No longer do men look upon poverty as inevitable, nor think that drudgery, disease, filth, famine, floods, and physical exhaustion are visitations of the devil or punishment by a deity.

Here is the central fact with which statesmanship tomorrow must contend. The political promises that will be made and the great popular movements that will rise will deal with the demands of people for the ever larger harvest that science and nature, devoted to a common purpose, can be made to yield. The terms under which the people of the world will receive the products of technical advance, such as those that have come to this valley in the decade past, are at the vortex of the cyclonic forces of our century.

This hour, moreover, is the right time for telling of such things. In the desperation of a fight to survive, miracles have been wrought in laboratories and with machines. Seeing the reality of things they had never dreamed could happen, men have been deeply stirred; now almost nothing seeems impossible. Whether on the fighting fronts or tending the home sector, men are thinking of tomorrow,

thinking of it with longing tinged with fear and uncertainty, livened with hopes for the future. Those who fight and others who produce that their brothers may be able to fight want an earnest of good faith as to that future—things that they can see, can themselves experience. They seem no longer greatly moved and lifted by abstractions. Their thinking is less complicated but closer to life than that of the intellectual on the lecture platform or the political leader drafting a manifesto.

The fight itself comes first. But beyond that there are pictures in the recesses of men's thought behind the fighting: sixty acres of land, how it can be brought back to fertility; how to dehydrate or freeze the crop for the best kind of market; how to get back on a job at a new kind of factory machine at good pay; about a pleasant town where the kids can have bicycles; about electric lights and heated schools and churches and hospitals for the ill; no more flooding out every spring; long Diesel barges on the river to carry off the warehoused wheat; refrigerators and irrigation canals and an end to the malaria mosquitoes. The word spreads that these and many other such things can be realized after the war, that the inventors and engineers and chemists can make them happen. The word has spread to the crossroad towns in the Ozarks, the trailer camps in Detroit, the boarding houses in Fall River; to men in the oil fields across the Rio Grande, the collieries in Wales, the shops of Leeds and Manchester; even to the villages on the Ganges and the caves beneath Chungking.

Our faith is sustained by the inspiring words of great leadership, by the pledges of freedom and prosperity and democracy. But it is when the words unbend—when they come into men's homes, to their farms, their shops—that they come alive to men. Do the words mean that a livelihood will not always be won at the cost of such drudgery for men and women, will not always be so skimpy and bitter? What of the soil of their land—will it always be so starved? What of the metal that could be made of the minerals, and the houses of the forests; what of the gadgets to pump the water that for so long the women have carried in buckets day after day? What of the river that flows through the valley—what great things would happen if its flow could turn the wheels of new fac-

tories? This is a job of building for the new skills of young engineers and chemists and the Army-trained mechanics; a job for the architects and engineers with ideas about new kinds of cities, for the physicians with ideas for new kinds of hospitals and revolutions in nutrition.

The inspiring principles—is this what they mean? To give them such a meaning takes more than words and promises, however eloquent and honestly uttered. This is a job of work to be done, a job for which there is already some experience and more than enough talent and skill. The words of promise can be made to come true. Here is the Grand Job of This Century.

But everything depends upon *how* this job is done.

The spirit in which the task is undertaken; its purpose, whether for the welfare of the many or the few; the methods chosen—these will determine whether men will live in freedom and peace, whether their resources will be speedily exhausted or will be sustained, nourished, made solid beneath their feet not only for themselves but for the generations to come.

The physical achievements that science and technology now make possible *may bring no benefits,* may indeed be evil, unless they have a moral purpose, unless they are conceived and carried out for the benefit of the people themselves. Without such a purpose, advances in technology may be disastrous to the human spirit; the industrialization of a raw material area may bring to the average man only a new kind of slavery and the destruction of democratic institutions.

But such a moral purpose alone is not enough to insure that resource development will be a blessing and not a curse. Out of TVA experience in this valley I am persuaded that to make such a purpose effective two other principles are essential.

First, that resource development must be governed by the unity of nature herself.

Second, that the people must participate actively in that development.

The physical job is going to be done; of that I think we can be sure. But if, in the doing, the unity of nature's resources is disregarded, the price will be paid in exhausted land, butchered forests,

polluted streams, and industrial ugliness. And, if the people are denied an active part in this great task, then they may be poor or they may be prosperous but they will not be free.

Is it inescapable that such a task of resource development be carried on only by highly centralized government direction? Must it inevitably be run by a privileged élite of managers or experts or politicians? Yes, say the defeatists about democracy, the cynics, the disillusioned and frustrated liberals, the believers in force, the disbelievers in men. Can it be done in no other way than by gutting the resources of nature, by making the countryside hideous, by maiming the forests, fouling the streams, ignoring the unity of land and water and men? Yes, that is "the way things are," say the greedy, the short-sighted, the unperceptive.

The experience in this valley gives the lie to such answers and to those who utter them. The whole point of the TVA experience that I shall seek to make plain in this book is that the best way, perhaps the only way the job can be done effectively is by observing the unity of nature, by following democratic methods, by the active daily participation of the people themselves.

What has gone on in the Tennessee Valley and what I shall describe in this book is specific, graphic, particular, something that can be seen, appraised, analyzed. One demonstration is worth much generalized discussion and tall talk. TVA was initiated frankly as an experiment; it has been administered in the spirit of exploration and innovation. But it is no utopian Brook Farm experiment; no endeavor to escape into a simpler past or a more romantic future. TVA and this valley face the facts of the present with all its complexities and difficulties.

The methods of democratic development represented by the TVA are distinctive, but their roots lie deep in the soil of American tradition and common experience. They are methods that differ from those customarily employed both by private enterprisers and public agencies. Nevertheless the TVA experiment has been carried on under the existing rules of the game of American life. It required no change in the Constitution of the United States. Congress has maintained full control. Property rights and social institutions have undergone no drastic amendment. In short, the

valley's change has gone forward under typical and traditional American conditions, rather than under non-existent "ideal" conditions that would not or could not be duplicated.

The breadth of purpose and the distinctive methods of the TVA —these it is that constitute the most important part of the enterprise. It is these that will have the greatest usefulness to other Americans and to the increasingly large number of responsible men in other nations who are concerned with problems essentially similar to those that faced this valley ten years ago.

It is upon such purposes and methods that our answers to issues of peace and freedom will turn. All else—"principles" of economics and finance, dollars and pounds sterling, tariffs and taxation, unemployment insurance, health programs, new gadgets and plastics and chemicals and electronic devices, democratic government, even essential international arrangements—will depend upon the decisions we make and the course we follow tomorrow in the fundamental activity of developing the resources in the soil, the air, the water, and within the earth, through modern skills of science and organization.

Chapter 2

A RIVER IS PUT TO WORK FOR THE PEOPLE

THIS is an entirely different region from what it was ten years ago. You can see the change almost everywhere you go. You can see it in the copper lines strung along back country roads, in the fresh paint on the houses those electric lines were built to serve. You can see it in new electric water pumps in the farmyards, in the community refrigerators at the crossroads, in the feed grinders in the woodsheds. You can see the factories that stand today where there were worn-out cotton fields and rows of tenant shacks a few years ago. You can see new houses, by the thousands, on the edges of the towns—new houses of the men who take away as much cash from a few trips to the payroll window as they used to earn in a year.

You can see the change best of all if you have flown down the valley from time to time, as I have done so frequently during these past ten years. From five thousand feet the great change is unmistakable. There it is, stretching out before your eyes, a moving and exciting picture. You can see the undulation of neatly terraced hillsides, newly contrived to make the beating rains "walk, not run, to the nearest exit"; you can see the grey bulk of the dams, stout marks across the river now deep blue, no longer red and murky with its hoard of soil washed from the eroding land. You can see the barges with their double tows of goods to be unloaded at new river terminals. And marching toward every point on the horizon you can see the steel crisscross of electric transmission towers, a twentieth-century tower standing in a cove beside an eighteenth-century mountain cabin, a symbol and a summary of the change. These are among the things you can see as you travel through the Tennessee Valley today. And on every hand you will also see the dimensions of the job yet to be done, the problem and the promise of the valley's future.

A technical man will observe much that will interest him, for the Tennessee Valley Authority represents a substantial technical achievement, a record written over a wide area in concrete and steel, and in land revived and forests renewed. Here one can see what modern science can do in a few years to change the face of the earth and the waters. That technical story has been recorded with painstaking care and great detail and published in the many volumes of scientific reports by TVA's engineers, agronomists, town builders, chemists, biologists, foresters, public health experts, architects.

These technical reports will interest the experts. The average citizen will measure the change through reports of another kind: in the records of new private industries established in the valley, of failing enterprises revived, more money in people's hands, less tax delinquencies, increased bank deposits, a greater volume of buying at the stores—trends clearly established before the war. The citizen may read of the decade's change in records of new public library service or state parks established where none had been before, more hospitals, county health units almost doubled, less tuberculosis and malaria and other "low-income diseases." He may read of the number of miles of lines built to bring power to the farms of the area and the rapid increase in the amount of electricity used by the people—unprecedented in this country. He may reflect on the better quality of food produced and the increased yield per acre on the land, or analyze the ton-miles of traffic increase on the river. He may figure the potential value of the millions of seedlings planted in farm woodland and forest. He may see the newly created "Great Lakes of the South," the beauty of their thousands of miles of wooded shoreline unmarred, deep blue waters set among high mountains and abounding with game fish.

Such sights and such records reflect the ways in which, as this beautiful valley has changed, the lives of several million fellow Americans have also changed.

The story of the change begins with the river. On the map the river's five mountain tributaries, each a considerable stream—the French Broad, the Holston, the Hiwassee, the Little Tennessee, the Clinch—are clearly set off from the broad main stem, the Ten-