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## Organizing the Next Wave of Development

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# Organizing the Next Wave of Development\*

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SIXTO K. ROXAS

## I

**I**N picking a text for this talk, I drew on Pierre Teilhard de Chardin, a noted natural scientist and philosopher, whose vision of the gradual evolution of a cosmic social system seemed appropriate to the theme I wanted to develop. A reference to Teilhard, although it may seem far-fetched, is quite appropriate in a discussion of business. If economics is far too important a matter to be left merely to economists, business is all too far reaching in its scope and its implications to be left merely to businessmen. It is part of my thesis that unless businessmen push their visions beyond the narrow confines of their own profit and loss statements, to see the unity and complexity of a national and international organization in emergence, they will find their own individual and separate growth running into a *cul de sac*.

The concept I have adopted from Teilhard is what he calls mega-synthesis.

In his principal work, *The Phenomenon of Man*, Teilhard sees in all of physics, biology and psychology, in the origins and development of matter, life, personal and social consciousness, the common phenomenon of evolution, not a blind purposeless and accidental evolution but a purposeful and

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\* Talk delivered before the Harvard Club of the Philippines, Plaza, Makati, 26 October 1966.

conscious process in which an orderly design seems unmistakable. For him, organization is the law of the universe. All evolution tends towards ever higher forms of organization. Development is integration at successively more complex and "higher levels". This integration he calls mega-synthesis.

It is one thing for man the free agent, however, to be immersed in these cosmic movements. It is another to be conscious of it, to have a clear vision of its character and direction and to suit his actions to its imperatives. Man's visions lag behind the circumstances. He does not immediately see the stage that circumstances make possible for him to take and make imperative that he take. This is why evolution is not a hitchless process. It proceeds at the expense of much effort and with great pain.

## II

Teilhard's vision applied to contemporary Philippine economic life and its recent history illuminates much that has gone on, where we now stand and what the future prospects and imperatives are. There is something of this same quality in the manner by which our economic growth has proceeded. The evolution of various forms of matter, living things and of man himself, appears to have proceeded in a succession of wavelike movements: the genesis of an inchoate form, its development, multiplication and diversification, pursued up to the limits of its energies and then a discreet jump to a higher level of complexity and organization, the birth of a new form which in turn develops in complexity, multiplies and diversifies, reaching another limit. Beyond, another discreet jump and so on. It is as if each jump produced a limited reservoir of energy and potentialities which took time to work out, to elaborate, to develop. At the end of a stage, the energy begins to lag and a fresh development needs to take place at a higher level of organization to open up a new frontier of possibilities.

In the Philippines after World War II, we have seen two such waves and we are now groping for a third. The first wave was that of economic restoration from the end of the

war up to about 1950. Out of the chaos that was left by the war, the Filipino sought to rebuild the country's economic organization. He rebuilt it according to the only design he had known—that of the pre-war Philippine economy, fundamentally agricultural, dependent on export of primary commodities to the United States and other industrial countries in exchange for which he received imports of food and fuel, clothing, construction materials, vehicles, and assorted luxury items. By about 1949, the work of restoration had been completed and production and trade restored to pre-war levels. Even as the restoration was being completed, it was obvious that the pre-war economic organization was no longer adequate to sustain and support the post-war population. This inadequacy manifested itself in a host of problems that the Filipino had not known before. Price inflation, once known only in connection with war and as an aftermath of war's destruction, continued despite the reconstruction of productive facilities, the resumption of export and import trade, and the reorganization of the governmental machinery. The Filipino was not even familiar with the concept of a balance of payments and here he was confronted with a serious payments disequilibrium that threatened to wipe out the foreign exchange balances which he had in abundance at the end of the war.

It was obvious then that the restoration of the old economic organization did not restore the old economic equilibrium. This wave had spent itself. What was required was no longer mere expansion but a qualitative transformation, a new, more complex economic organization, a new wave of evolution.

The desperate measures taken to meet the surface symptoms of a deep disequilibrium from the end of 1949 to the beginning of 1951 happened to provide the climate in which the next wave of development took place. Exchange controls, established in December of 1949, while established at that time as an emergency measure to stop the drain on exchange reserves, provided the protective umbrella for the domestic production of import substitutes. A light industrialization developed, concentrated mainly in packaging and light processing and manufacturing, it is true, but for the Philippines of this period, it represented a drastic departure from the past.

It meant a wide spectrum of new business activities which involved corporate organization, modern merchandising and marketing, investment not in appreciating land but in depreciating and specialized machinery and tools. It meant the development of all the ancillary forms that serve modern enterprise: the expansion and diversification of commercial banking, emergence of sales finance companies, investment companies, management companies, advertising and public relations firms, engineering and maintenance enterprise. The movement gained momentum in the second half of the 1950's. Automotive assembly plants multiplied. Textile finishing and later weaving and spinning, paper mills, tire plants, appliance manufacturing, electronics, plastic extrusion and fabrication, foundries, machine shops, petroleum refineries, drug and chemical plants.

By the end of the decade, it was evident how far this impetus had been pushed. There was hardly any field of light processing and assembly which had not been covered. Indeed overcrowding had begun to be the problem.

In a country with a consumption of about half a million yards of finished fabrics a year, we have twenty-three spinning, weaving and finishing mills. With a fuel consumption of less than a hundred thousand barrels of petroleum products a day, four petroleum refineries. To supply a demand of some fifteen to eighteen thousand vehicles a year, there are thirty-three assembly plants turning out thirty brands of cars. To produce 600,000 units of rubber tires, we have three tire companies. All these firms were established to substitute for imports and save foreign exchange. By 1960, it became obvious that the Philippines was saving about as much foreign exchange as a housewife on a Hong Kong shopping spree. At the end of the 1950's then, it became evident that this development wave had spent itself.

The 1960's saw a change in the ground rules for doing business. The artificial support on the peso was gradually removed and foreign exchange made available through legal channels only at costs approaching more closely its price in illegal channels. At the beginning of 1962, the elaborate ex-

change rationing system which had been built up all through the 1950's was dismantled. In November of 1965, the official parity of the peso was changed from the ₱2.00 per US dollar which had been fixed since 1903 to ₱3.90 per US dollar.

The six-year period from 1960 to 1965 has been a sort of interregnum, a protracted period of adjustment during which the economy has been groping for new directions a new dynamism to bring about a fresh wave of development. The removal of exchange controls and the umbrella of protection it had provided had a shock effect on the industries which had been conceived on the assumption of rigid protection from outside competition. The increase in the cost of foreign exchange threw out of kilter balance sheets and income statements of companies which particularly in the last five years of the decade had relied heavily on foreign exchange financing for their capital equipment and whose production costs were constituted largely of imported raw materials.

The removal of exchange controls furthermore transferred in one fell swoop the whole burden of providing protection from the Central Bank to the Bureau of Customs. Smuggling in all forms became rampant and was merely aggravated by further increases in the tariff barriers.

The fundamental problems of reorganizing industry were complicated further by technical, monetary and fiscal errors from the second half of 1962 to the third quarter of 1963. The national government and its agencies proliferated government deposits among private commercial banks. This had a twofold effect: first, multiplication of commercial banks established on the twin prospects of low-cost rediscounting with the Central Bank and large government deposits; second, a tremendous expansion in credit and money supply. By August of 1963, the reaction had set in. Government deposits were pulled out of the private banks, restrictive Central Bank measures were introduced placing rigid limitations on commercial bank rediscounting with the Central Bank. Coming as they did after a precipitous expansion of bank credit in an economy where whole industries were already facing serious cash problems, these measures created the worst bank liquidity crisis the business community had yet seen.

Nineteen hundred and sixty-five was also a presidential election year and that year saw the most expensive election thus far. Since government revenues had not been bolstered with new taxes since about 1952 and the government was not disposed to curtail expenditures in an election year, the government's budget was seriously in deficit. Neither was it considered politic to levy new taxes and the entire brunt for maintaining some modicum of stability had to be placed on Central Bank control over private credit. Part of the resources, furthermore, of the Government Service Insurance System, the Social Security System, the Philippine National Bank and the Development Bank of the Philippines went to finance national government borrowings further constraining the already limited supply of medium- and long-term funds in the system.

In 1966, the new government moved rapidly to remedy the situation. Programmed expenditures from January to June 1966 were reduced, tax collection intensified, the Bureau of Customs reorganized. In May this year, the government also started a program to tap private savings with short-term treasury bills.

In the first semester of the calendar year, therefore, the government budget showed a small cash surplus. The decision to exercise fiscal discipline made it possible early in the year to ease commercial banking credit. In January, the Central Bank issued a series of circulars and memoranda increasing the rediscount quotas of commercial banks, reducing the rediscount rate from 6% to 4-3/4%, reducing reserve requirements on special time deposits and savings deposits. These were further liberalized on April 15th. The easing of credit gave the commercial banking system the opportunity to repair its liquidity position.

There is no doubt but that the first measures taken by the new government have improved the climate tremendously. Smuggling has been contained significantly and the operations of the textile and the paper industries have manifested a marked improvement. We do not have as yet, however, the basis of a new wave of development. The economy is still

caught in the calm between a wave that has receded and another that has not yet been formed. It is to this problem now that I should like to turn.

When we look at the state of the key sectors of the Philippine economy in 1966, we find that in almost every case, development has reached a dead-end, a *cul de sac*, an impasse. What we need, if you will, is a series of new breakthroughs but the unique situation in which we find ourselves is this: a breakthrough in each of the sectors can no longer be achieved merely by pushing the further growth of that sector; the breakthrough in one depends on what happens to the other sectors. All sectors must advance together or none will advance at all. We are faced with the evolutionary process of Teilhard's vision. What we need, in each of the sectors, is a new mega-synthesis, a fresh reorganization of economic activity at a higher level.

Let us examine in the concrete how this is so. For this purpose, let me analyze briefly the problems of industry and agriculture.

### III

Far more than in the developments of the past fifteen years, future evolution of industry in the country must cope with the harsh logic of interdependency. The whole line of development towards metal fabrication, foundry work, smelting, hot and cold rolling of iron and steel products offers a leading example of such an interdependency. We have, as we said, spawned a tremendous number of assembly plants putting together from imported knock-down parts passenger cars, trucks, tractors and various farm equipment, motorcycles, air conditioners, refrigerators and other consumer durables. Very little genuine manufacturing in the sense of foundry and fabrication work exists as yet. Aside from small captive base shops servicing the maintenance and replacement requirements of equipment users and small machine shops handling rebuilding of parts on a job order basis, there is no machining industry to speak of. The foundry complex in the country is in a similar situation. A few equipment manufac-



turers and engineering firms have captive foundries. The large majority, however, are small job-order foundries using primitive methods.

The same is true in the utilization of flat steel products. Galvanizing plants bring in their black iron sheets; pipe plants bring in steel skelp; tinplate plants bring in cold rolled sheets. Structural steel forms are brought in largely in finished shapes and merely reworked by contractors at job sites.

Bringing together all these diverse elements of a metal industry into an organized complex capable of orderly growth, development and evolution, is a tremendous task of synchronization. Backward integration means heavy capital investments. The economics of fixed costs and tooling up expenses demand large volumes of individual parts with uniform specifications. The precondition is a fairly rigorous standardization of parts even in large markets. In the Philippines, with its relatively small market in end-products, it requires far more rigorous standardization to generate minimum economic-sized volumes for the manufacturing of individual parts. This is a rather impossible situation to bring about when in every category of end-product there is a multiplicity of brands. When a market of fifteen to eighteen thousand vehicles a year is divided up among thirty different brands of cars and twenty-eight different brands of trucks, it is almost impossible to find any one part which provides minimum economic-sized volumes for local fabrication. Running down the list, we find a dozen brands of room air conditioners and about the same number of designs of compressors, twenty-one brands of tractors, and of power tillers, etc.

Here clearly is a case where the combined efforts of many individual entrepreneurs, each pushing his own particular growth, each struggling to maintain his own small share in the market, are clearly inadequate to achieve this global reorganization that further development of the whole industry demands.

The same situation exists in the chemical industry. Here perhaps the degree of interdependency is even more complex. We have textile companies using various types of synthetic

fibers, plastic converting companies doing extrusion and fabrication of various plastic products; chemical mixing plants producing paints, insecticides, pesticides, fertilizers; tire companies using different varieties of carbon black. It is quite an adventure to establish the linkages between the products used as inputs of these enterprises (rayon and nylon fibers, varieties of plastic materials, solvents, refrigerants, fertilizer components, glues and binders) to the basic chemical raw materials (sulphuric acid, ammonia, caustic soda) and back to petroleum, limestone, salt, sulphur, water, air, wood and other cellulose sources. The exercise requires technical capabilities, organizational genius and capital mobilization in prodigious magnitudes. It is hard to envision here once again that all these small fabricating plants, each pursuing its own narrow course of growth, facing problems of competition, marketing and financing, when combined, will by some miraculous alchemy, produce an organized industry capable of exploiting the full potentialities offered by the country's markets and resources. Here again the further development of the industry depends critically on the reorganization not at individual firm level but at the level of the whole complex.

We could multiply examples to cover almost the whole variety of production lines that make up the nation's economy. Let me, however, cite as a last example in industry, the case of food packing. Here we find development reaching an impasse by reason of the vital interdependency between industry and agriculture. Factory production imposes its own stern discipline. Unlike land, industrial plant and equipment do not appreciate in value and do not possess an indefinite life. On the contrary, they depreciate right from the day they are installed and every day that they are not in use represents an irretrievable loss. Their profitability, therefore, depends on continuous use and their continuous use in the field of food packing and processing depends on a steady stream of agricultural products within a narrow range of specifications. This industry requires from agriculture a fairly rigorous scheduling of supply deliveries. It needs furthermore a certain degree of standardization and grading of agricultural products.

A large meat packing plant must depend on a fairly organized system for marketing and transporting cattle and hogs. Its economics requires that these animals be of a certain size. One modern meat packing plant, for example, has found that if it processes steers of less than 350 kilograms liveweight the ratio of waste to usable materials increases so rapidly as to render the processing uneconomical. The ideal size is about 450 kilograms. This simple specification itself has a far-reaching implication on the type of cattle industry which needs to be developed in a country. The average liveweight of native cattle runs at about 200-250 kilograms. To bring the cattle to the desired weight is not merely a question of feeding — it is a question of changing the whole breed.

Then there is the problem of proper finishing, organized marketing and transport of the cattle. Cattle are not ready for the processing plant when they have just been brought from the open pastures. They must be finished and fattened properly. Marketing and transport, furthermore, cannot be economical if steers must be gathered by transport vessels in small lots in multiple ports. There must be central stockyards and gathering points where cattle ships can load economical sized lots. Very clearly, all of these require organization beyond the level of the individual food packing plant or the individual ranch or the individual shipping company.

A parallel situation exists in the milk industry. Between the raw milk from the cows and the milk, cream and butter that are served on the dinner tables, a great deal of processing intervenes. One of the serious problems of handling milk is the fact that it is a commodity composed of over 85% water. To transport it economically over long distances, this water must be somehow boiled away. This sounds like a simple process but the plant and equipment required to do it can be feasibly established only if adequate volumes of milk are available. It takes years to develop the dairy cattle herds that will regularly supply sufficient volumes of fresh milk. At certain minimum volumes the supply of fresh milk forthcoming from relatively small herds might be absorbed by local markets. Beyond these volumes, however, there is an awkward range where

the milk supply will be beyond the fresh milk market and will still be too small to warrant the processing plants. That gap constitutes one of the most serious obstacles to the development of the industry. It will not be bridged spontaneously merely by the powdered milk users on the one hand or the individual dairy cattle raisers on the other.

#### IV

Let us now look at the bottlenecks in agricultural development itself. I would like to start by mentioning a common illusion about agriculture in a tropical country like the Philippines, which in my opinion has diluted much of the effort to meet the problems of agricultural development head-on in this country. The illusion is that in a tropical country fed alternatively by heavy doses of rainfall and hot sunshine, agriculture is a relatively simple matter. Are not the tropics, after all, characterized by lush greenery, useful crops growing like weeds without tending or care?

Against this illusion we have the facts of comparative agricultural performance. It is not, it cannot be, a mere coincidence that agricultural productivity has been and continues to be lowest precisely in the tropical regions of the world. Even in the case of a tropical crop like rice, the average yield per hectare in Europe and North America is from 1-1/2 to 2-1/2 times the average yield in Asia and Africa, not to speak of other crops such as wheat, rye, barley, corn and potatoes. The fact is that the very elements that characterize tropical regions really militate against commercial agriculture: the long seasons of heavy rainfalls, of fairly high temperature and resulting high humidity seem to be more disadvantageous than beneficial to agriculture. Much of the food that plants derive from the soil is soluble in water. Heavy rains dissolve and carry off these nutrients or bring them down to great depths where they become inaccessible to shallow rooted crops.

The greenery that we associate with the tropics really represents the desperate attempts of nature to deal with this basic natural disadvantage. The rain forests, for example, are typically composed of deep rooted trees that have managed

to establish a cycle that maintains the fertility of the soil. Their deep roots tap the nutrients beneath the surface of the soil, digest these nutrients, fix them in their branches, trunks and leaves. When the leaves and trunks fall to the ground and decompose they in turn enrich the top soil. This is a tenuous cycle, however, that is easily broken when the forests are destroyed. Once broken, it is almost impossible to restore by natural means. We are all too familiar with the spectacle of wastelands quickly emerging from out of the ruins of lush rainforests. Once the cycle is destroyed, the available plant nutrients in the top soil are promptly eroded and the rains leach to the bottom of the soil what little nutrients are left. This means that commercial agriculture in the tropics is not an easy enterprise but one filled with tremendous risks, calling for careful management as much as any complex industrial enterprise. It means that the individual farmer pitting his own meager resources alone against the disadvantages of nature quickly fights a losing battle. It means that perhaps even more than in industry, agricultural development must be pursued in a scientific, systematic, organized way and the organization must encompass whole regions rather than merely individual small plots.

I must hasten to add that this statement of the problem does not necessarily prejudge the question of the size of the individual farm. I believe the Taiwanese and Japanese experience has shown that agriculture based on small farm holdings can be efficient and productive but there the organization of agriculture goes far beyond the individual farm holding. In Taiwan, for example, the farmers' associations perform in many ways what large individual corporate farms are able to do in other countries. Witness, for example, the pineapple industry in Taiwan. Through the farmers' associations, thousands of individual farmers produce standard varieties of pineapples according to specifications and a time cycle which synchronizes with the packing plants in much the same way as these operations are synchronized in the large plantations of Del Monte or Dole.

One final point and I shall rest my case on the character of the impasse that development has reached in both industry

and agriculture at this time in the Philippines. It is to be conceded, I believe, that in the last 15 years, agricultural development has been relatively neglected in the country. We have also now reached the stage where further development of industry depends widely and crucially on the growth of agricultural productivity and incomes. The directions which industrial development must take involve heavy capital investments in plant and equipment. The corollary of this is large, growing, continuous mass markets. The one market frontier in the Philippines that will need to be opened up is the rural market. There is only one way of opening up that market and this is by increasing farm productivity and farmers' incomes. Only then can the farmer be a buyer particularly of the consumer durables which are now saturating the urban centers. Once again, we are confronted with the same phenomenon: further development of the Philippine economy requires simultaneous, orderly and organized development on a wide front.

What then are the implications of our analysis for a national development policy and strategy?

In every key sector of the economy, development is at an impasse. A new wave of development requires organized movements at levels beyond the purview of individual firms as they are presently organized. We are faced, to use Teilhard's term, with a crisis of a new mega-synthesis.

The question, then, is who shall perform the mega-synthesis? Who shall bring it about? Who has the vision, the resources, the organization and management capabilities to reorganize whole economic sectors into the macro-units that will open up fresh frontiers of evolution and growth?

I realize that when the question is put in these terms, in the contemporary world with its convenient labels for political and philosophical positions, it seems to raise the old question of left and right, liberal and conservative politics, *dirigisme* and *laissez-faire*, planning and free enterprise.

This is not really the question I am raising. To raise merely this issue is to take the existing forms of organization

as given—private business and its industry associations, government and its state enterprise—and to argue merely on the matter of their respective and proper agenda with respect to economic activity.

The point I am raising is much more fundamental: the whole question of whether the organizational forms as we know them, as they have been established with Western prototypes as exemplars, are the only forms from which we can choose.

In dealing with development it is important to take nothing for granted and to maintain an experimental attitude. Our experience and circumstances may dictate new organizational forms, new designs and a new distribution of functions and responsibilities, a different deployment of managerial talents.

Let us review the experience.

With Government first of all. I shall not belabor the performance of Government in the Philippines to date, as economic planner, as innovator and entrepreneur, as arbitrator of conflicting interests, as builder of roads, airports, harbors, and utilities, as commodity trader, as real estate manager and as industrialist. I believe I do not risk much contradiction here, if I say the performance so far has left much to be desired.

And the private businessman? In the Philippines he is seen with a bit of a double vision—as part benefactor and part pirate—respected, even adulated, for the former; feared, suspected and vilified for the latter. He is a dispenser of jobs and charities and contributions to political parties. He is a savage fighter, scheming, conniving in the jungle of competitive business. But whatever he is, as businessman he is no scholar or philosopher seeking insights into first principles, no scientist obsessed with the laws of natural processes, no technologist designing apparatus that harness to useful purposes the laws of nature, no artist recovering in media of word, color or sound the great aesthetic experiences of mankind.

What he does have, what is sharpened in him by the very activities which command his attention from day to day,

is an instinct for practical action, a merciless sense of realism insofar as his business is concerned, an insight into what moves and motivates men. He is under pressure, the way no government official is, to understand those elements in society and in technology that affect his business and his ability to make a profit. For him it is a matter of survival. His understanding of those elements is therefore far keener, far more thorough than any government official's. The rice trader's understanding of the rice market mechanism has a precision and a mastery of detail beyond that of any government economist. A businessman knows what he needs to know to survive and grow in his business and he knows it well. Not without reason does the saying go: "He knows his business." If he did not, he could not stay in it.

What he gains in detail, he loses in perspective. The smaller the scope of his business the narrower is his viewpoint—the viewpoint somehow remains narrow even when he bands together into industry associations for the protection of his interests. The associations formed according to interest groups, somehow cannot get a total view that is larger than the sum of their parts.

I hold no brief either for the state or the private businessmen in the administration of the national economy. As presently constituted, and with private business in the Philippines as badly fragmented as it is, neither group seems sufficient to launch the new wave of development.

One conclusion we can draw is that the improvement of the investment climate alone through, say, the establishment of favorable ground rules would not be adequate to induce domestic entrepreneurs to expand domestic investments. The problem goes beyond the mere legal and tax framework which affects the treatment of investments and its returns. Nor will the mere expansion of bank credit or of medium- and long-term loans from government financial institutions be sufficient. What is needed is a willingness of domestic enterprises to regroup themselves into larger complexes in order to encompass a wider scope of development in large integrated projects. What is required from government is to provide a



stimulus and material assistance to such larger private aggru-pations. If domestic entrepreneurs are not prepared to do this, then they shall in effect forfeit the field to the large international companies which may be prepared to go into development at such a scale and who have the experience, the management and capital resources to perform, in effect, this critical function of mega-synthesis. If the vehicle through which international companies perform this function is permitted to take the form of wholly-owned subsidiaries, there will always lurk a suspicion that whenever a conflict arises between the country's long run economic interest and the company's international competitive posture, the national interest will be made subordinate. This will inevitably give cause for friction and nationality considerations will become inevitably involved in normal market competition.

What we seek ideally is some formula for developing working partnerships among the three—Philippine government, domestic entrepreneur and foreign enterprise. Here, let me leave the argument, with the hope that this is not merely another impasse.