Theodore E. Downing is currently directing a national ecodevelopment project for the Centro de Ecodesarrollo in Mexico. *Project funding comes from a contract by the Mexican Coffee Institute and the Mexican National Council of Technology and Science. The opinions expressed in the paper do not represent those of either organization. A version of this paper was presented at the Annual Meeting of the Society for Applied Anthropology in Merida, Mexico, April 1978.*

Ecodevelopment: An Alternative Future?

by THEODORE E. DOWNING

High in the Sierra of Southeastern Mexico, Juan climbed the muddy footpath to the village meeting house. Entering, he lightly touched the palms of his fellow Mazatecs. The Coffee Institute man firmly gripped his hand, greeting Juan in an outsider's manner. The meeting began. Juan listened carefully, but missed many Spanish words he didn't know. The Institute man explained why the government was unable to pay for the sacks of coffee Juan and his fellow villagers had sold to the Institute over a month ago; why rich men in New York were unwilling to pay a high price for his coffee; why it was important that Juan sign a letter supporting the Institute's policy of not exporting coffee until the price went up; why and why and why. Juan listened, concealing his discontent. He worried about his family. They had run out of maize four months ago and were forced to buy on credit from the rich merchant in the market town—at twice its fair price. He worried about the debt he still owed the Institute for credit on this year's crop. He had held onto his coffee, hoping the price would rise. If he had miscalculated, he might not be able to repay his debt, he might not be able to get more credit for the next cycle, he might not be able to pay his other debts, he might not. . . .He moved to the small wooden table and signed the letter of support. What difference did it make?

Juan and hundreds of thousands of peasants like him, produce that indispensable brew which sits beside many of your desks while you thumb through this journal. His economic future depends on decisions thousands of miles and many cultures away. Unlike his father, Juan no longer plants enough corn to feed his family. Unlike his father, people and events far away control his future. Yet his village has changed very little since the time of his father. It is poor. The meeting house has the only concrete floor in the village. No one has running water, electricity, roads, medical assistance, or more than three years of primary education. Like his father, he once dreamed that these benefits would come to his village. Now he knows they won't. To know that other world, Juan will have to leave, join the masses of urban migrants melting into Mexico's squatter settlements or sneak across an imaginary line into

the land of dollars in the North. Juan, in the eyes of his intellectual supporters from within the government and academy, is the victim of increased exploitation and a development philosophy of dependent industrial capitalism. In many quarters, alternative futures are being considered for the Juans of the peasant world.

One alternative future receiving increased international attention is an innovative development style: ecodevelopment. Ecological development or ecodevelopment originated from criticisms of the inability of agroindustrial capitalism to generate sustained, economic growth without exploiting the less powerful and the resiliency of nature. Now that ecodevelopment is under serious consideration in Africa, Asia, Latin America, and the South Pacific (UNEP-CIRED 1977a, b, c), it is important that HUMAN ORGANIZATION consider its antecedents, objectives, strategies, and problems. To facilitate an understanding of the concept, examples will be drawn from a current ecodevelopment project in Mexico.

ANTECEDENTS. Since the late sixties, the likelihood that nations attempting capitalistic development would be able to achieve sustained economic growth has become increasingly doubtful. Nations pursuing an agroindustrial, capitalistic style of development inflict serious, often irreparable, damage on the ecosystem. The environmental costs affect not only the beneficiaries of capitalistic development but also the poor within the developed world, the satellite nations and regions, and future generations (Sigal 1977). Nonrenewable resources fueling this form of progress are finite. World demand for petroleum, the most critical of developed nations' resources, is expected to exceed world supply before the end of this century (Flower 1978) and already the price of fertilizers used in U.S. agriculture has risen over 250 percent since 1973. Moreover, agroindustrial capitalist development has been achieved through the political and economic exploitation of developing nations as well as at the cost of regional inequalities and dependencies within the so-called "developing countries" who have blindly emulated their masters (Frank 1967).

The preceding diagnosis has emerged from a series of conferences and books sponsored by the United Nations, its agencies, and various national governments: in Stockholm, on environment; in Vancouver, on habitat; in Nairobi, on desertification; in Founex, on development and environment; and many more. The prognoses cast a gloomy, yet realistic shadow over the developing world. Most underdeveloped nations will *never* achieve the high standards of living and energy consumption of the industrial West. If they attempt to duplicate the Western experience, they are restricted, at the very best, to be perpetually developing. Worldwide agroindustrial capitalistic development does not require more credit, more markets, more capital, more money, or more time. The planet lacks the resources, energy, and environmental resiliency necessary for a world developed in a capitalistic fashion.

In consequence, consideration has been given to the "other development," alternative futures that might be free from the ills of the Western experience and oriented toward a long term, possible future (United Nations 1975). The United Nations Environment Programme has responded to the search for alternatives. At its first administrative meeting in June of 1973, the new director, Maurice Strong, introduced the concept of ecodevelopment to encapsulate many of the alternative solutions that were emerging in the underdeveloped world. Subsequently, the UN General Assembly requested the Executive Director to supply a more detailed report on ecodevelopment—a report which was recently published (UNEP 1976). Other institutional responses should be noted. The University of Paris awarded its first Ph.D. in ecodevelopment three years ago (1975) and the new nation of Papua New Guinea recently adopted the strategy as national policy (Passaris 1977). Similar institutional responses and meetings have been occurring in Brazil, Venezuela, and other Latin American countries (UNEP-CIRED 1977a, b, c).

In 1973, Ignacy Sachs, a Polish economist from the Ecole des Hautes Etudes en Sciences Sociales in Paris, introduced the philosophy of ecodevelopment to Mexican government and intellectual leaders (Restrepo 1974, 1976a, b). Two years later, the Mexican National Council of Technology and Science (CONACYT) established the Centro de Ecodesarrollo (CECODES), under the direction of Ivan Restrepo. CECODES and other Mexican scientists, planners, and engineers are exploring, in specific projects, the possibility of implementing ecodevelopment-oriented programs in Mexico (CECODES Bulletins 1977-78). Many ideas emerging from this group were critically evaluated in a symposium sponsored by the Mexican Epistemological Association (Leff 1976).

THE OBJECTIVES OF ECODEVELOPMENT. Ecodevelopment promotes an image of an ideal or developed society which sharply contrasts to that of agroindustrial capitalism (Pozas 1976; UNEP 1977a). Capitalism emphasizes short-term, economic growth maintained by the constant exploitation of nonrenewable resources. In contrast, ecodevelopment stresses sustained growth through the rational exploitation of renewable resources. Whereas capitalism replaces human labor with capital intensive technology, ecodevelopment supports the development and diffusion of technologies appropriate to the sustained reproduction of a socioeconomic system. Appropriate technologies utilize, whenever possible, locally available manpower and renewable resources. Capitalism and its economic development mission produce profit for the few. Poverty and pollution are its by-products. In contrast, the primary objective of ecodevelopment is the satisfaction of human needs—food, clothing, shelter, fuel, and dignity for

the individual—for a large segment of the population. Whereas capitalism organizes the human relations of production on the basis of dominance and subordination, ecodevelopment promotes a more democratic organization of production, based on collaboration and mutual assistance. Control of the economic relations of production, in capitalism, comes through the manipulation of the population by means of experts, professionals, lawyers, and political bosses. In contrast, ecodevelopment supports the involvement and control of programs by the local population. Farmers know more about their land than professional agronomists in a distant national capital and community leaders are better able to interpret local customs than nonnative lawyers and judges. And whereas capitalism encourages asymmetric, dependent relationships between city and rural areas, landlord and peasant, expert and layman, developed and underdeveloped, metropolis and satellites, ecodevelopment tries to reduce dependency by actions specifically designed to prevent the reproduction of such relationships. In brief, ecodevelopment envisions societies which are striving for self-sufficiency, exploiting renewable resources, conserving nonrenewable resources, and reproducing relations of production which reduce political and economic exploitation.

ECODEVELOPMENT STRATEGY. Ecodevelopment requires an assessment, reevaluation, and reorganization of production. An inventory is taken of the resources, technologies, energy sources, and infrastructure at the lowest level of administrative action. The inhabitants of the region are included as active participants in the research, with the ecodevelopment planner providing technical assistance. The inventories include an estimate of the expected lifetimes of nonrenewable resources and the expected recuperation time for renewable resources. The technological inventory includes all technologies which provide food, clothing, shelter, and energy, without regard for their simplicity. For example, local materials which are potentially useful in housing construction are given high priority, even though most housing may be constructed of imported materials. Technologies are compared by means of multiple measures of efficiency, costs of repair, reliance on imported components or technicians to maintain them, and simplicity of production and upkeep. A recent survey of appropriate technologies by the Centro de Ecodesarrollo in the Mexican tropics has uncovered an extensive list of relatively simple solutions to problems which otherwise might seem to merit the unnecessary development of sophisticated technologies (CECODES 1978). During the survey, an attempt is made to discover localized, innovative technologies which merit wider dissemination. The broad notion of assessment and inventory is also carried into the area of energy. All potential and actual sources of energy are considered: wind, solar, hydrologic, animal, as well as more conventional forms. Above all, local peoples are encouraged to evaluate the exploitative demands and dependency relationships implied in their current patterns of energy, resource, and technological development.

Ecodevelopment also requires the local population to reevaluate all productive and trade activities. Are nonessential, renewable resources given preference over essential, nonrenewable resources? What trade strategies might reduce dependency on imported, nonrenewable resources to provide basic needs? Is the region capable of processing some of its raw materials rather than exporting them for processing elsewhere? What forms of human exploitation prevent profits from accruing to producers? Where appropriate, the reevaluation extends to the research programs of government and universities that are supposedly acting in concert with a region's development. Ecodevelopment planning asks what institutional research programs are consistent with the available manpower, resources, and needs of the region's peoples. Are emerging technological innovations consistent with the region's needs or might they increase the efficiency of exploitation and alienation of men from the means of production? Are educational institutions training students to combat the exploitation of people and resources? What mechanisms determine the distribution of wealth and profits?

Properly done, an ecodevelopment planning process should increase the people's awareness of who they are and where they are going. Moreover, the analysis provides a model of how the exploitative relationships in a region are recreated, generation after generation. This model of socioeconomic reproduction may then become the basis of subsequent planning activities. From the viewpoint of ecodevelopment, its objectives cannot be achieved without terminating exploitative relationships. Sterilization is nearly impossible unless there is a clear understanding of the reproductive system which continually recreates the injustices of the past.

A national ecodevelopment project, advocating *detailed* regional strategies, runs counter to the philosophy itself. As priority is given to local decisions and solutions rather than centralized planning, the most creative work occurs at the local level. Ecodevelopment planning, at higher administrative levels, consists of supporting and designing systems of trade, production assistance, communication, and decentralizing administrative structures so as to facilitate local level solutions. Under ecodevelopment, government assumes the role of an advisor and facilitator rather than a centralized planner and implimenter.

AN EXAMPLE: MEXICAN COFFEE. The Center for Ecodevelopment's (CECODES) largest project, Strategies for the Ecodevelopment of Mexican Coffee Producing Regions, illustrates the practical problems facing the new development strategy. After petroleum, coffee is Mexico's most valuable export. In 1976, Mexico exported over 241 million dollars of green coffee, more than offsetting a 120

million dollar debt incurred by the need to import basic necessities such as maize, wheat, soybeans, and other cereals (Comercio Exterior 1977). Part of the high value of coffee must be attributed to sharp increases in international prices following the Brazilian freeze (1975–76). Nonetheless, few question the importance of coffee in the national economy.

Despite its importance, the Mexican coffee industry is weakly developed. Productivity (kilograms/hectare) is low, showing wide variations between regions and producers (Chalita et al. 1974:33). Less than a fourth of the producers fertilize, control pests or diseases infecting their plants, receive technical assistance, or perform similar agricultural activities known to increase production. In San Luis Potosí, Hidalgo, Puebla, and Veracruz, the CECODES survey showed that poor transportation forced a fourth of the producers to carry the harvest to market on their backs. Another half used beasts of burden. An estimated half of Mexico's coffee trees are considered past the prime, productive age. Much of the national crop fails to meet export quality standards. In many regions, it is more appropriate to refer to coffee "gatherers" rather than coffee producers, since little care is given to the plants and most of the labor input comes during harvest.

Mexico's coffee producers rank among the nation's poorest, most marginal peoples. The majority of the 100,000 or more producers live in remote corners of Veracruz, Oaxaca, and Chiapas, with smaller clusters to be found in Hidalgo, Puebla, San Luis Potosí, Guerrero, and Nayarit. They tend to own their land, with less than three percent being renters. In sharp contrast to Brazil's large coffee plantations, three-fourths of Mexico's coffee farmers have less than three hectares. Coffee, together with temporary wage labor, provide them with a cash supplement to what otherwise must be considered subsistence farming. Others, like Juan in the Mazateca, have almost abandoned subsistence farming in favor of coffee production. The remaining fourth of the producers are far more important than they might appear. In the States of Puebla, Hidalgo, San Luis Potosí, and Veracruz, CECODES estimates that one tenth of the producers own almost one half of the coffee producing lands. Many of these larger farmers form part of Mexico's new *latifundista* class, with dispersed holdings, slightly smaller than the minimal legal holding, located in different parts of the country (Warman 1975).

Margarita Nolasco's analysis of 180 coffee producing *municipios* (an entity roughly equivalent to a county in the United States) showed that over one half were among the nation's most rural, poorly communicated, and underdeveloped. Half exhibited characteristics which merit their classification as "Indian," with the remainder being traditional peasant regions. In all fairness, it should be noted that this dismal situation among coffee producers is not unique to Mexico, but appears equally true of Africa's coffee producing nations (Rourk 1975).

THE PROBLEM. The Mexican Coffee Institute (INMECAFE) holds federal responsibility for improving and regulating the nation's coffee industry. The Institute's problems began following the Brazilian freeze and the subsequent catapulting of world coffee prices. To many Mexican economists, increased coffee and petroleum exports appeared a godsent solution to a nation plagued with balance of payment problems. Consequently, Mexico and other major coffee exporting countries have decided to increase production. If successful, a production increase can only be counterproductive to producers. A decline in prices can almost be assured as production increases and Brazil returns to the international market. This phenomenon, called the "cobweb effect" by agricultural economists, is the unfortunate consequence of coffee exporting nations' failure to build an effective cartel for stabilizing international prices. Nonetheless, INMECAFE is currently reorganizing its administration structure in preparation for a campaign to double production within five years. The critical planning problem created by this situation is how to double production without creating a serious future crisis among coffee producers when the prices fall.

As the CECODES national ecodevelopment survey nears its halfway point, the alternative development strategies are crystallizing. A traditional solution would be to pump credit and technical assistance into large farms. From the viewpoint of institutional capabilities, this alternative appears attractive. INMECAFE employees are accustomed to working with large farmers. Recent attempts to work more closely with medium and small producers have met with passive resistance from many of the Institute's technicians and administrators. Large producers are more receptive to technical advice, better credit risks, more easily located, fewer in number, and culturally more similar to INMECAFE professionals than remote, monolingual, small producers. Unfortunately, preliminary evidence suggests that substantial gains in productivity cannot be expected by further investments in large farms. Larger farms appear to show smaller returns to increased labor and capital investment than smaller farms. Whereas the owners of larger farms already weed, prune, fertilize, apply pest and disease controls, and use other technological changes, most small farmers do not. Higher returns can be expected if investment is funnelled in this direction. INMECAFE's previous organizational activities among medium and some small farmers also complicate planning actions. INMECAFE peasant organizers have created a class of politically alert farmers who are beginning to make demands on the Institute and would undoubtedly react strongly to any development plans which ignored them.

Even if INMECAFE decided to increase production by investing heavily in medium and small farms, extreme caution must be exercised in the way this alternative is realized. If small scale producers, who are now planting *some* coffee along with their subsistance crops, are transformed into

producers who farm *only* coffee, the government risks increasing the dependency of a large segment of the peasantry on international price fluctuations. More and more peasants will share the worries of Juan in the Mazateca, as was witnessed earlier. A rapid decline in world prices might cause an economic and political eruption when the Juans of Mexico discovered that the costs of purchased food and hired labor did not decline with the coffee prices.

Consequently, the ecodevelopment strategies at CECODES are considering the feasibility of parallel investments in improving coffee production and subsistence agriculture among smaller farmers. Coffee farming appears ideally suited for such a strategy. In contrast to crops where increases in production are best achieved through expanded acreage, coffee productivity may be increased by intensifying labor inputs. Intensification of production is also preferred because acreage expansion can only be achieved at the expense of subsistence crops. Currently, the center's agronomists and ecologists are reviewing information collected in over 900 interviews with coffee producers. They hope to discover or design systems of multicropped parcels which produce coffee along with other products which the peasants already know how to use and say they need. The CECODES survey has discovered hundreds of species which may be intercropped with coffee and provide not only food but materials for housing construction and firewood. Although it might appear counterintuitive, the long term result would not be a decline in coffee production. Rather, the result would be an intensification of coffee production among a peasantry which had a more productive and diversified subsistence base. It should be stressed that the specific cropping sequence and parcel plans are not being designed by the CECODES agronomist and ecologists. Instead, the spectrum of possible actions are to be worked out with the coffee producers themselves at a local level.

MARKETING STRATEGIES. Marketing includes all actions influencing the flow of a product between its sale by the original producer and its purchase by the consumers. Coffee marketing is inherently complex. Hundreds of thousands of small farmers produce coffee in the world's tropics. The product is funnelled through fewer intermediaries: local buyers, regional warehouses, government customs, trucking and shipping companies, transnational food companies, packers, processors, advertising agencies, supermarkets, and so on. Eventually, the product reaches the cups of millions of consumers, most of whom are located in temperate areas far from the original area of production.

In Mexico, the opportunities for taking advantage of the marketing process are multiple. The physical isolation and poverty of the small producers creates opportunities for unscrupulous middle men to monopolize credit, purchases, and transport. Coffee trading often forms the economic base for local political bosses (*caciques*) as well as regional and national power brokers. The states of Oaxaca and Chiapas, for example, have a politically powerful block of coffee brokers and producers whose activities merit closer examination. Although many producers are technically capable of processing their own coffee, they lack the capital and organization necessary to compete with the strongly vertically organized transnational food industry. Poor communications concerning price changes and hundreds of regionalized, incompatible systems of weights and measures offer further opportunities for exploitation during the marketing process.

Given the poorly developed market system, it appears that an aggressive and well planned marketing of coffee may be extremely beneficial to the ecodevelopment of the nation, its regions, and producers. The complete details of a new marketing policy need not be considered in this report, but the general process of restructuring coffee marketing from top to bottom should be emphasized. Nationally, Mexico emphasizes the export of an undifferentiated product, green coffee (*café verde*), with little emphasis placed on toasted or soluble (processed) coffee exportation. In 1974, Mexico exported 175 million pounds of green coffee to the United States, its largest single customer. A handful of large transnationals processed the Mexican coffee into toasted and soluble forms for internal consumption and even reexported a small quantity back into Mexico. During the same period, Mexico exported only 41,887 pounds of processed, soluble coffee to the United States, earning only 37,000 dollars (Pan American Coffee Bureau 1974). In terms of the balance of soluble coffee payments between the two countries, Mexico actually registered a loss of 259,000 dollars. Thus Mexico forfeited profits to U.S. transnationals by exporting an unprocessed, raw material. It must be stressed that the Mexican coffee industry is technologically capable of processing its own soluble coffee for export and currently meets much of the domestic demand for this form of coffee.

A radical ecodevelopment strategy for coffee marketing might consider reducing the national dependency on the London and New York coffee markets by reducing or suspending the export of green coffee and aggressively competing with the transnationals by exporting processed coffee. To be consistent with the ecodevelopment objectives, this exported soluble coffee should be differentiated down to the level of brand names and packaging (Stefflre 1977). Such a strategy would not only bring some of the profits gained in foreign markets back into the country, but would also encourage the regional processing and product differentiation of coffee. Rather than exporting and marketing a single domestic brand (Mexican Coffee), the new market would consist of multiple, regional brands: Acapulco, Pluma Hidalgo, Veracruz, Soconusco, Highland Zapotec, and Mixe coffee would be available to the discriminating coffee consumer. A bottleneck appears to be the inability of foreign food producers to enter into the

monopolized supermarket distribution system in the United States. Correctly instituted, the economic benefits of this strategy would be captured by the new producer-processor regions.

Critics of this radical marketing strategy should note that another beverage, equally as popular as coffee, has been successfully marketed in a similar fashion. In fact, the marketing strategy for this product has been so successful that transnationals have been unable to control the market. Instead, they have entered the product's market by introducing a low cost, inferior, and mass produced substitute. The product? Wine.

It must be emphasized that these suggestions are being made without the benefit of a complete analysis of the sources of exploitation in the coffee producing areas. An appropriate strategy of ecodevelopment can only be derived from an integrated analysis of the forces of production and discovery of the mechanisms which recreate, generation after generation, the exploitative relationships. The most important point is that a consideration of the benefits of any market's strategy to the producer, consumer, and the environment are given high priority in ecodevelopment planning.

PROSPECTUS. The last quarter of this century will involve radical transformations in life styles, political relations, and man's relations with his environment. Nations striving for economic growth by means of agroindustrial capitalism are attempting to survive the transformation by increased exploitation of their satellites, powerless people, and diminishing resources. Concurrently, some less developed nations are continuing to imitate the Western development experience, but are only able to provide the comforts of development to a small elite. Neither the emulator nor the emulated will survive.

Ecodevelopment offers one of many alternative approaches being explored. To many, its proponents appear idealistic, enthusiastic, and messianic. They have rejected the roles which capitalism assigns to social scientists—roles which require the social scientist to adjust short-term plans to environmental impossibilities, increase the efficiency of exploitation, or administer to the fragmented societies which the transformations leave in their wakes. Instead they are forging new philosophies which might guide nations through the expected transitions. The almost religious adherence with which nations have clung to the idea of economic expansion can only be fought with equally powerful ideas.

REFERENCES CITED

Centro de Ecodesarrollo (ECODES)
1977–78 Bulletin. It may be obtained by writing: Altadena 8, Col. Nápoles, México 18, D.F.

Chalita Tovar, Luis E., Daniel Barrera I., Lorenzo Nietos and Andrés Villaseñor L.
1974 Costos de Producción de Café en Cereza y Asuntos Económicos Relacionados. México: Instituto Mexicano del Café.

Comercio Exterior
1977 Sumario Estadístico. 27(10):1263–68.

Flower, Andrew R.
1978 World Oil Production. Scientific American March: 42–49.

Frank, Andre Gunder
1967 Capitalism and Underdevelopment in Latin America. New York: Monthly Review Press.

Leff, Enrique, ed.
1976 Primer Simposio sobre Ecodesarrollo. Mexico City: Asociación Mexicana de Epistemología.

Pan American Coffee Bureau
1974 Annual Coffee Statistics. No. 38. New York.

Passaris, Solange
1977 Ecodevelopment in Papua, New Guinea. Ecodevelopment News 2(May): 6–15.

Pozas, Ricardo
1976 Ecodesarrollo y Ecocrecimiento, Dos Conceptos Opuestos. *In* Primer Simposio sobre Ecodesarrollo. Enrique Leff, ed. Mexico City: Asociación Mexicana de Epistemología.

Restrepo, Iván
1974 Medio Ambiente y Desarrollo: Estrategias Para El Tercer Mundo. Special Issue of Economía Política, Vol. XI, No. 3.
1976a El Centro de Ecodesarrollo en México. Ceres (Marzo-Abril): 58–59.
1976b El Ecodesarrollo y Algunos Problemas del Sector Agropecuario. Comercio Exterior 26(1):9–16.

Rourk, J. Phillip
1975 Coffee Production in Africa. Washington: Foreign Agricultural Service of the U.S. Department of Agriculture. FAS-M-266.

Stefflre, Volney
1977 Development without Dependence: Appropriate Technology and Ecodevelopment. University of Houston. Unpublished manuscript.

Sigal, Silvia
1977 Poverty and Pollution. Ecodevelopment News 1(Feb.): 5–24.

United Nations
1975 "¿Qué hacer?" Development Dialogue No. 1 and 2; Special Edition prepared for the Seventh Special Session of the United Nations General Assembly. Uppsala: The Dag Hammarskjold Foundation.

United Nations Environment Programme—CIRED
1976 Ecodevelopment. Item 15b of the provisional agenda for the Fourth Goberning Session of the United Nations Environmental Programme. 14 April. UNEP/GC/80, 15 January 1976.
1977a Ecodevelopment News No. 1, February.
1977b Ecodevelopment News, No. 2, May.
1977c Ecodevelopment News, No. 3, October. Published in French and English by the International Research Center of Environment and Development with the support of the United Nations Environment Programme. It may be obtained by writing: 54, Boulevard Raspail, Bureau 309, 75270 Paris—Cedex 06, France.

Warman, Arturo
1975 El Neolatifundio Mexicano: Expansión y Crisis de una Forma de Dominio. Comercio Exterior 25 (12): 1368–74.