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## LATIN AMERICA'S COMMUNAL RESPONSE TO THE ENERGY CRISIS: THE LATIN AMERICAN ENERGY ORGANIZATION (OLADE)

CHRISTOPHER C. JOYNER\*

### INTRODUCTION

On November 2, 1973, twenty-one nations in the Latin American community formally signed the Lima Agreement which established the Latin American Energy Organization (Spanish acronym, OLADE).<sup>1</sup> The legal creation of this new regional organization, while not in direct response, came less than three weeks after the Arab members of the Organization of Petroleum Exporting Countries (OAPEC)<sup>2</sup> imposed an embargo on petroleum exports to the United States and the Netherlands, as well as substantially reducing petroleum production rates for countries in the European Economic Community and Japan.<sup>3</sup>

Given this extraordinary occurrence and the indicative caprices earmarking international petro-politics, the formulation of OLADE merits special consideration because of the political implications and economic potentials held out to its member states. Therefore, the purpose of this article becomes threefold: First, to analyze the energy situation in Latin America and by doing so, determine what factors were chiefly responsible for prompting the need for a region-wide energy organization. Second, to examine the various provisions comprising the Lima Agreement in order to gain insight into their realistic viability and chances for success. And finally, to explore the rationale underlying this multinational accord, particularly those aspects favoring further Latin American integration, those fostering greater permanent sovereignty over indigenous energy resources, and those prompting more progressive socio-economic development throughout the region.

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### FACTORS LEADING TO A LATIN AMERICAN ENERGY AGREEMENT

As might be anticipated, the general energy consumption pattern found in most of Latin America reveals moderately rapid industrial development, but set in predominantly agricultural, rural, spacially-diffused societies. The consumption of commercial energy fuels (viz., petroleum and petroleum products, natural gas, hydroelectric power, coal, geothermal energy, and nuclear energy) is relegated primarily to urban centers and, in national economies, to modernization programs. Non-commercial fuels (viz., wood, charcoal, sugar bagasse, sawdust, and other industrial residues) are concentrated mainly in rural households and the more traditional, slower developing areas.<sup>4</sup> (See Appendix, Tables A-1 and A-2).

As presently characterizing all industrializing countries, hydrocarbon fuels — chiefly petroleum and natural gas — furnish the bulk of energy needs. For Latin America, nearly 64% of the region's commercial energy is supplied by petroleum, while 17% is attributed to increased use of natural gas.<sup>5</sup> However, overall consumption of commercial energy in Latin America is unequally distributed, with four nations possessing three-quarters of the regional total: Mexico utilizes 24%, Brazil 23%, Argentina 16%, and Venezuela 10%.<sup>6</sup> Furthermore, projected indications suggest this disparate situation is unlikely to change within the next decade.

Despite these disturbing realizations, greater industrialization and socio-economic betterment can only be achieved with increased availability of energy fuels, the most important of which is petroleum. But for the overwhelming majority of people in Latin America, the petroleum picture is anything but bright.

Although petroleum production in Latin America has increased at a steady rate, its position relative to the world scene has noticeably deteriorated. Between 1960 and 1970 crude oil production in Latin America rose from 228.2 million cubic metres to 304.8 million cubic metres, signifying an annual growth rate of 3.3 percent.<sup>7</sup> Nevertheless, while perhaps superficially impressive, this growth index lags far behind the world average of 8.2 percent, and mirrors Latin America's depreciating role in world crude production — down from 18% output in 1960 to barely 12% in 1970.<sup>8</sup>

Regarding future crude oil assets in Latin America, during the period 1960-1970 proven reserves dropped from 3800 to 3600 million cubic metres.<sup>9</sup> Admittedly, by 1972 new discoveries considerably boosted reserve

holdings in Ecuador, Bolivia, Brazil, and Mexico.<sup>10</sup> Even so, these gains have been appreciatively offset for the region as a whole by accompanying reserve declines in Venezuela, Peru, Colombia, and Argentina.<sup>11</sup> (See Appendix, Table A-3).

At the same time proven reserves have been falling, consumption of hydrocarbon fuels in Latin America has pursued a fluctuating upward trend, and currently represents more than 80 percent of all commercial energy demands.<sup>12</sup> Coincident with this, three noteworthy observations about Latin America's general growth patterns of petroleum demand should be posited:

1. The average per capita consumption of petroleum and its derivative products is relatively high, evidencing an annual increase of 4% compared to the world average of 3.5%.

2. There exist wide inter-country inequities for per capita petroleum consumption and its proportionate contribution to the total schema of energy usage.

3. In major crude exporting countries, bunkers (i.e., oil transporting tankers) and consumption in oil fields and refineries account for high proportions of total energy demand.<sup>13</sup> Thus, the energy consumption pattern varies greatly from one Latin American nation to another, and in the primary oil producer countries, the petroleum sector itself moves into the forefront of governmental attention.<sup>14</sup>

Also, on the national level a distinction must be drawn between those countries which can barely satisfy their own needs (or must resort to petroleum imports to meet demand) and those which are self-sufficient in petroleum resources and remain traditional exporters. Such a comparative overview of present and future production capabilities vis-à-vis consumption demands is provided in Table 1 below.

Table 1  
Latin America: Forecast of Crude Oil Production  
and Consumption 1975-1980  
(Million Cubic Metres)

Country	1975			1980		
	Production	Consumption	Balance	Production	Consumption	Balance
Argentina	30.0	34.0	- 4.0	40.0	44.5	- 4.5
Bolivia	3.6	0.9	+ 2.7	5.0	1.2	+ 3.8
Brazil	16.0	40.0	- 24.0	25.0	55.0	- 30.0
Colombia	15.0	8.0	+ 7.0	20.0	10.5	+ 9.5
Chile	2.5	7.8	- 5.3	2.5	10.0	- 7.5
Ecuador	15.0	2.3	+ 12.7	25.0	3.2	+ 21.8
Mexico	36.0	37.0	- 1.0	45.0	48.0	- 3.0
Paraguay	—	0.4	- 0.4	—	0.6	- 0.6
Peru	5.0	8.0	- 3.0	7.0	10.5	- 3.5
Trinidad and Tobago	10.00	2.5	+ 7.5	12.0	3.7	+ 8.3
Uruguay	—	2.6	- 2.6	—	3.4	- 3.4
Venezuela	240.0	11.0	+229.0	270.0	14.0	+256.0
Others	.2	16.0	- 15.8	.02	20.0	- 19.8
Total	373.3	170.5	+202.8	451.7	224.6	+227.1

Source: ECLA, on the basis of official data; *The Petroleum Economist* (January, 1974).

Table 1 plainly reveals that Brazil, Mexico, Argentina, and Venezuela are the principal crude oil consumers in Latin America, subsequently followed by Colombia, Peru, and Chile. Nearly 80% of regional demand for hydrocarbon fuels emanates from the first four countries; if the latter three are added, the resultant total represents over 90% of Latin America's entire petroleum usage.<sup>15</sup> Significant also is the realization that this trend will persist throughout the 1970's.

Interestingly enough, the aggregate surplus of crude oil production for all Latin American consumers — more than 200 million cubic metres — is grossly misleading. When Venezuela is excluded from the production totals, a truer picture of Latin America's energy situation emerges: given today's tendencies, by 1975 there will be a production-consumption deficit approximately 26.2 million cubic metres of crude; persistent to 1980, this deficit will have risen to nearly 29 million cubic metres.

Presumably then, Latin America's status as a regional exporter in the world energy market depends heavily on Venezuela's production capability. However, in recent years Venezuela's share in world petroleum production has markedly dwindled, despite sizeable export increases to the United States.<sup>16</sup> This decline is attributed to rapid acceleration of crude production in the Middle East and North Africa, which climbed from 27% of the world total in 1961 to 44% by 1970.<sup>17</sup>

Venezuela's portion of Latin America's crude oil output has diminished as well — from 74% of the region's total in 1961 to 71% in 1972 — due to heightened production rates fixed by Ecuador, Mexico, and Argentina.<sup>18</sup> Notwithstanding this, Venezuela still contributes more than 60% of Latin America's crude oil production increases, nine-tenth's of regional crude exports, and about seven-tenth's of exported refined petroleum products.<sup>19</sup> The only other noteworthy exporters of crude in Latin America are Colombia,<sup>20</sup> Trinidad and Tobago, Bolivia, and Ecuador (since 1972).

Latin America's refining capacity on the whole rose 4.6% annually during the 1960's,<sup>21</sup> but three-fourth's of the region's refineries are located in only four countries: Venezuela possesses 34% of Latin America's refinery operations, while Mexico maintains 14%, Brazil 12%, and Argentina 11%.<sup>22</sup> Yet, prior to the 1973 Arab embargo, refinery expansion in Venezuela — which had more than doubled between 1955 and 1965 — practically had become stagnant. Similarly, Colombia and Trinidad and Tobago evinced spurts of refinery growth during the 1960's, but lately they have ceased to make any telling improvements.<sup>23</sup>

One crucial problem confronting the large majority of Latin American countries is the immediate need to satisfy energy demands through imports. Certainly, crude oil is usually cheaper to import than its derivatives, but the advantages and feasibility of this procedure remain contingent upon the requisite volume and structure of consumption found in each country. Accordingly, a definite and rapid tendency towards replacing imported petroleum products with crude oil has become typical in many Latin American countries. Not surprisingly, therefore, in the past decade refined imports have decreased constantly while crude imports have risen dramatically from 27 million cubic metres in 1971 to 60 million cubic metres in 1970.<sup>24</sup> This replacement process has been patently evident in Brazil, Chile, Ecuador, Central America, and Jamaica. Mexico, however, is the notable exception, allowing imports of refined petroleum products since 1961 to grow nearly six-fold.<sup>25</sup> This "luxurious practice" has been

permitted principally by Mexico's progressive expansion of domestic production and refinery operations to counterbalance swelling local demands for crude.

In contrast, Brazil is by far Latin America's greatest net importer of petroleum. During 1970 more than 18.7 million cubic metres of crude were imported by Brazil.<sup>26</sup> These petroleum imports, almost double Brazil's own production of 9.5 million cubic metres, comprised 44 percent of the region's entire inventory of crude imports and 27 percent of its imported refined products.<sup>27</sup> Perhaps more alarming than this, Brazil's import bill for petroleum products soared from \$249 million in 1961 to \$330 million in 1970,<sup>28</sup> and the pattern remains unbroken today. Last year Brazil paid out a staggering \$2.1 billion for petroleum imports.<sup>29</sup>

Brazil, which in 1972 imported an average of 376,000 barrels of crude per day (b/d), is not alone by any means regarding import dependency. The most recent figures available — those from 1972 — indicate that Chile imported 70,500 b/d, Argentina 45,000 b/d, Uruguay 42,000 b/d, Peru 35,000 b/d, and Mexico 35,000 b/d.<sup>30</sup> Understandably, Latin America's importing nations are very anxious not to lose out in the present world scramble for available supplies of petroleum. Conversely, the region's exporters are equally anxious to reap the fullest benefits accrued from heightened energy demands coincident with skyrocketing petroleum prices. The upshot of these developments finds both Latin America's exporters and importers quite cognizant of the paramount need to protect their national economic interests in a rapidly changing world petroleum market place. Yet, the seriousness of the situation becomes fully apparent when the devastating financial impacts upon inter-regional trade programs are realized.

The severe difficulties in meeting balance-of-trade payments, greatly exacerbated by tremendous price escalations for petroleum commodities during the past year,<sup>31</sup> could portend catastrophic economic repercussions for every energy-importing country in Latin America. To demonstrate this, the current magnitude and severity of the regional balance-of-payments situation is presented in Table 2.

Table 2  
Latin America: Cost of Net Imports, 1974  
(In millions of US\$)

	1973 monetary reserves	1973		Petroleum Imports		Relation 1974 Petroleum Imports to Reserves		Relation 1974 Petroleum Imports to Exports		Relation 1973 Petroleum Imports to Exports	
		Exports	Imports	1973	1974	5=4/1	6=4/2	6=4/2	7=3/2		
Dominican Republic	49.5	401.6	74.8	204.6	413.3%	51.0%	18.7%				
Panama	188.9 <sup>a</sup>	161.7	80.6	220.4	116.7	136.3	49.9				
Honduras	41.8	231.8	17.7	48.4	115.8	20.9	7.7				
Jamaica	127.0	361.0	46.2	126.5	99.6	35.1	12.8				
Costa Rica	42.4	292.3	13.3	36.3	85.6	12.5	4.6				
El Salvador	54.2	268.6	13.3	36.3	67.0	13.6	5.0				
Uruguay	209.0	340.0	49.0	133.9	64.1	39.4	14.5				
Haiti	19.2	47.0	3.7	9.4	53.1	20.0	7.8				
Nicaragua	110.1	285.8	14.3	39.1	35.5	13.7	5.0				
Brazil	6,480.0	6,100.0	768.4	2,101.8	32.4	34.5	12.6				
Paraguay	57.1	92.3	6.5	17.7	31.0	19.2	7.1				
Guatemala	212.1	386.5	24.1	66.0	31.1	17.1	6.3				
Argentina	817.0	3,100.0	87.4	239.0	29.3	7.7	2.9				
Peru	557.0	1,024.5	52.4	143.2	25.7	14.0	5.2				
Mexico	1,093.0	2,165.0	19.4	53.0	4.9	2.5	.9				
Chile	...	1,173.0	107.1	293.0	...	25.0	9.2				
Barbados	...	38.8	9.5	26.0	...	67.1	24.5				
Total	10,251.3	16,469.9	1,387.7	3,795.4	37.1	23.1	8.5				

<sup>a</sup>Net international monetary assets of the banking system. ... Data not available.

Source: OAS official data.



To pay solely for petroleum imports, Latin America as an economic entity had to dole out more than 23% of its 1974 export revenues. In the individual case of Brazil the figure is an astounding 34.5%.

Obviously, expenditures for petroleum purchases (as a proportion of export revenues) differ remarkably throughout the region. For example, petroleum imports for Barbados are estimated to be higher than 64% of its exports' value in 1974, compared to only 24.5% in 1973. Other Latin American countries experiencing the same financial burden have reported representative 1974 and 1973 percentages of their export revenues for payment of petroleum imports as follows: the Dominican Republic, 51 versus 18.7%; Uruguay, 39.5 versus 14.5%; Jamaica, 35.1 versus 12.8%; and Brazil, 34.5 versus 12.6%. Three non-petroleum exporting countries in Latin America appear less affected by the recent surge in petroleum prices. Mexico paid out only 2.5% of export revenues in 1974, whereas a year earlier the amount was 0.9%. Likewise, statistics from Argentina and Costa Rica indicate significantly lighter financial pressures from petroleum imports upon their national economies.

Even so, predictions of petroleum costs are calculated to exceed 25% of every Latin American state's monetary reserves this year, with the single exception being Mexico (4.9%). Generally, petroleum import costs vis-à-vis monetary reserves is most pronounced in the countries of Central America, the Caribbean area, and Uruguay. Thus, while the Dominican Republic's 1974 petroleum import bill will claim an incredible 413.3% of its 1973 monetary reserves, the relative projections for Central America vary from 115.8% in Honduras to 31.1% in Guatemala; for the Caribbean, from 99.6% in Jamaica to 53.1% in Haiti; and for Uruguay, the estimation has been put at 64.1%.

The probability that the net petroleum importing countries of Latin America will reduce their purchases abroad in the foreseeable future, is for all intents and purposes, nil. In the first place, 68% of all energy regionally consumed is derived from petroleum crude;<sup>32</sup> in the second place, 45% of all Latin America's petroleum demands are supplied by imports<sup>33</sup> — with eleven countries importing more than 95% of their hydrocarbon needs.<sup>34</sup> As a result, this exaggerated dependence upon petroleum, coupled with a dearth of technological and economic resources for developing new alternative energy sources, suggests that any substantial reduction in consumption levels could possibly generate a concomitant contraction in many national economies, and consequently produce an economic climate conducive to continental recession.

On the other hand, four countries in the Latin American family presently enjoy declared petroleum-exporter status: Venezuela, Ecuador, Trinidad and Tobago, and Bolivia.<sup>35</sup>

Table 3  
Petroleum Exports by Net Exporting Countries of Latin America, 1972  
and Estimates for 1973 and 1974

	1972	1973	1974	Increase (%)	
				1974 1972	1974 1973
<b>Venezuela</b>					
Volume (millions of barrels)	1,121.0	1,143.2	1,166.9		
Value (millions of US\$) <sup>a</sup>	2,875.0	4,012.6	11,200.0	389.6	279.1
<b>Ecuador</b>					
Volume (millions of barrels)	24.9	59.9	66.1		
Value (millions of US\$)	59.9	276.5	595.0	993.3	215.2
<b>Trinidad and Tobago</b>					
Volume (millions of barrels) <sup>b</sup>	51.7	56.9	60.0		
Value (millions of US\$)	124.1	191.1	540.0	435.1	282.6
<b>Bolivia</b>					
Volume (millions of barrels)	10.9	12.2	13.2		
Value (millions of US\$)	31.7	40.4	121.0	381.7	299.5
<b>Total</b>					
Volume (millions of barrels)	1,208.5	1,272.2	1,306.2		
Value (millions of US\$)	3,090.7	4,520.6	12,456.0	403.0	276.0
Average price per barrel	2,557.0	3,553.0	9,563.0	372.9	268.4

<sup>a</sup>Actual sales price.

<sup>b</sup>National production.

Source: OAS official data.

As depicted in Table 3, petroleum revenues of these four net exporters will increase, according to estimates by the Organization of American States, from \$4.5 billion in 1973 to \$12.5 billion in 1974. Concurrently, the cost of petroleum imports to Latin American countries will jump from \$1.4 billion in 1973 to \$3.8 billion in 1974, or a rise greater than 250%.<sup>36</sup>

In short, this debilitating encroachment upon the payments situation for most Latin American countries — aggravated by recent price developments — will, in great likelihood, disrupt many national development programs. Payment deficits will become more outstanding; production costs in industry will increase sharply due to accelerating energy costs and less availability of vital non-petroleum imports; and, deficit countries might be forced to reorder their development priorities by favoring more export-oriented industries to encourage a more satisfactory balance-of-trade.<sup>37</sup>

To recapitulate, several troubling manifestations in Latin America's present energy situation have demonstrated the urgent need for an inter-American energy organization to establish policies and priorities:

1. Despite the increasing per capita indices in consumption rates, production of hydrocarbon energy sources has been unable to keep pace with demand.
2. Accelerated crude oil production has signalled a decline in total proven reserves within the region.
3. Latin America's consumption, production, and refining of petroleum and its derivatives are unevenly concentrated geographically among a handful of countries hence making access to hydrocarbon imports more difficult for less fortunate governments.
4. Latin America's regional "surplus" of crude oil production is actually a statistical mirage. When Venezuela's participation is omitted, regional production estimates reveal sharp deficiencies in the foreseeable years ahead.
5. Only four countries in Latin America are net exporters of petroleum. All others must, in differing degrees, rely upon imports to satisfy their energy demands.
6. The phenomenal price increases for imported crude have precipitated an impending financial crisis for almost all Latin American economies. Whereas the few oil-endowed are now acquiring great revenues, the many oil-deprived are concurrently suffering huge deficits in their balance-of-trade payments.
7. Finally, should present-day financial trends continue unabated, economic development and industrial priorities in Latin America will likely be compromised for a shift toward export industries to accommodate mounting trade deficits. Such a turn of events surely would pose an indefinite delay for socio-economic progress throughout the region.

Realizing these grave implications for Latin America's energy situation, the governments in the region sought each other's advice and counsel. Plans were initiated, negotiations undertaken, compromises made, and preliminary studies conducted. The immediate solution came in the form of a new regional body—the Latin American Energy Organization (OLADE).

### FUNCTIONS AND STRUCTURE OF OLADE

The birth of OLADE evidences a surprisingly short gestation period. After the First Latin American Informal Meeting of the Consultation of Ministers of Energy and Petroleum (held in Caracas, August 21-24, 1972), proposals were made openly for forming a continent-wide energy organization. In April 1973, during the Second Latin American Meeting of the Consultation of Ministers of Energy and Petroleum in Quito, it was decided to recommend to all governments in the region creation of OLADE.<sup>38</sup> Less than seven months later the Lima Agreement was formally presented, signed, and submitted for ratification to the respective national legislatures.<sup>39</sup>

As enunciated in the Lima Agreement, OLADE embodies an organization dedicated to "cooperation, coordination, and advisory service," guided by its central purpose to encourage the "integration, protection, conservation, rational use, marketing, and defense of energy resources of the region."<sup>40</sup>

Moreover, fifteen objectives and functions are enumerated as cardinal goals undergirding OLADE's politico-economic existence. In summarized form, these are:

1. To promote unified action for utilizing and protecting the region's energy resources and to defend ("individually or collectively") against any "actions, sanctions, and coercion" which might impede the advancement of a member state's socio-economic development plans;
2. To further the independent development of energy resources and capabilities;
3. To formulate rational policies for exploring, exploiting, processing, and marketing energy resources;
4. To engender the conservation of all energy resources;
5. To foster inter-American negotiations for stabilizing those energy supplies fundamental to each member state's "own integral development;"

6. To expedite the industrialization of energy resources and the expansion of energy-producing industries;

7. To encourage the implementation of "energy programs of common interests;"

8. To provide a forum contributing to the "understanding and cooperation among member states," especially concerning the appropriate uses of energy resources;

9. To promote the creation of a financial organization to subsidize energy-related programs;

10. To assist landlocked countries acquire free transit privileges of energy resources across member states territories;

11. To advance development of a sea, river, and land transportation network, hence facilitating transnational access to energy resources;

12. To advocate formation of a Latin American energy market which would proffer recommendations for fair pricing policies conducive to progress in national energy sectors;

13. To exhort prudential regulation of national energy policies as an incentive for regional integration;

14. To promote technical cooperation and the exchange and dissemination of scientific, legal, and contractual data among member states; and

15. To urge adoption of effective measures for preventing environmental pollution, particularly that resulting from "exploitation, transportation, storage, and use of energy resources" in the region.<sup>41</sup>

In order to achieve these broad functional objectives, three main organs were designed as OLADE's structural components: the Meeting of Ministers; the Board of Experts; and the Permanent Secretariat.

The Meeting of Ministers, composed of the national secretaries overseeing energy matters in each member state, is the supreme decision-making authority in the organization.<sup>42</sup> This body is designated to formulate general policies and to issue directives deemed essential for accomplishing the aforementioned purposive goals.<sup>43</sup> Furthermore, the Meeting of Ministers is responsible for ultimately approving OLADE's budget, annual energy report, and financial statements, as well as regulating the by-laws and selecting the organization's chief executive officials.<sup>44</sup> These substantive functions are augmented by the Meeting of the Ministers' chartered power

to appropriately consider any recommendations and reports submitted by the Board of Experts or the Permanent Secretariat.<sup>45</sup> On procedural questions, the Meeting of Ministers is obligated to designate convention sites and schedule assembly dates for OLADE's biannual sessions.<sup>46</sup>

Respective to parliamentary procedures, each member state is allotted one vote in the Meeting of Ministers.<sup>47</sup> For a quorum to be declared, two-thirds of the member states' representatives must be present,<sup>48</sup> and curiously, all decisions within this body are adopted by only a one-third affirmative count of the delegates voting.<sup>49</sup>

The Board of Experts, entrusted with no voting power, operates essentially as a preparatory committee for the Meeting of Ministers. Made up of delegates sent by member countries, this organ is expected to convene twice a year and serves OLADE primarily in an advisory capacity.<sup>50</sup> That is, the Board of Experts submits the proposed agenda and tentative work programs to the Meeting of Ministers, in addition to conducting detailed studies and drafting reports on energy activities in Latin America.<sup>51</sup>

Finally, the Permanent Secretariat, as defined in the Lima Agreement, is the "executive" organ of OLADE.<sup>52</sup> Directed by the Executive Secretary,<sup>53</sup> this body has the responsibility for transmitting reports and relevant documents from member states to the Board of Experts for critical analysis and review.<sup>54</sup> Integral duties assumed by the Permanent Secretariat entail drafting the working agenda and proposed energy programs for the Board of Experts;<sup>55</sup> preparing and submitting to the Meeting of the Ministers (after study and approval by the Board of Experts) OLADE's budget, its annual report, an energy "balance sheet," and a financial statement;<sup>56</sup> and supervising studies pertinent to energy resources, particularly hydrocarbons, with especial emphasis on detecting possible implications for socio-economic conditions in member states.<sup>57</sup>

No less important are the information-gathering duties assigned to the Permanent Secretariat staff. Chief among these are maintaining updated inventories of member countries' energy requirements, resources, regulations, and localized program priorities;<sup>58</sup> appointing informed groups and expert panels to analyze more efficacious means for activating state energy plans;<sup>59</sup> and compiling all data relevant to furthering OLADE's regional purposes.<sup>60</sup>

Thus, OLADE's functional machinery embodies a legal institution specifically charged with improving inter-American governmental and technical cooperation in energy matters. The region's instrument for

activating corrective energy action has been shaped and organized, but subsequent responsibility belongs to the member states for interpreting objectives of the organization, determining necessary policies, and providing the means for operationalizing designated programs. To accomplish genuine transnational cooperation, OLADE must be able to discern continental priorities and make appropriate policy decisions. Our analysis now turns to these pressing policy needs.

### TOWARDS A REGIONAL ENERGY DEVELOPMENT STRATEGY

Although there were many exclamations of "regional solidarity" and "hemispheric brotherhood" after the Lima Agreement was promulgated, the greatest challenges for OLADE lie in the immediate months ahead. In this regard, five areas of exigency will have to be acted upon effectively if Latin America's dire energy situation is to be ameliorated. First, in the current era of spiraling global inflation, energy costs and prices — particularly those of hydrocarbon fuels — must be re-evaluated in light of each country's financial ability to pay; second, secure and adequate energy supplies must be assured for every OLADE member to foster industrial development and socio-economic progress; third, member states' energy research and development programs must be emphasized and expanded — not only in perfecting new energy sources, but also in optimizing production efficiency of those sources presently being utilized; fourth, OLADE must enact legislative sanctions on a national basis for preserving human health and safeguarding the national environment from energy pollutants; finally, implicit in all of the above is some sacrifice of sovereign national interests, especially by petroleum exporters, for the good of the entire regional community.

During the interim months since OLADE's formation, some corporation officials have speculated whether this new regional body might be the incipient step towards a continental regime to strictly regulate indigenous resource exploitation by foreign commercial interests. Respective to energy producing activities, OLADE conceivably could exercise two primary responsibilities: first, OLADE might become a legal conduit for standardizing and protecting negotiated contract terms for joint energy ventures with foreign companies (such as those recently concluded in Bolivia, Ecuador, and Peru); and second, if a "guest" multinational exploiting company were to seriously threaten or economically jeopardize a Latin American host country, OLADE's concerted response could bring down heavy retaliatory pressure against the offender.

Notwithstanding these possible interventionary roles for OLADE, it should be realized that within the last decade Latin American countries increasingly have acquired permanent sovereignty over their indigenous hydrocarbon resources.<sup>61</sup> This is clearly evidenced by the evolution of state petroleum enterprises which are endowed with extensive regulatory powers, possess considerable decision-making autonomy, and operate in nearly every phase of indigenous petroleum extraction. As a result, in 1965 the prominence attached to public ownership of national petroleum operations eventuated into a separate petroleum organization, the Latin American State Petroleum Enterprises Mutual Aid Association (Spanish acronym, ARPEL).<sup>62</sup>

Even so, prior to OLADE's inception, ARPEL's activities were restricted mainly to conducting petroleum surveys and to serving as a forum for oil company discussions about common problems. In short, weak political support, coupled with a lack of financial resources, precluded ARPEL from assuming a more positive regional role in energy matters. Now, however, OLADE appears to be generating new life and purpose through the ARPEL group. Two weeks after the Lima document was signed, ARPEL agreed to advocate establishing a Latin American energy common market.<sup>63</sup> This indeed was significant progress toward achieving one of OLADE's cardinal goals, namely inauguration of a fair system in the region for setting uniform crude oil prices, which in the past had been fixed by arbitrary, unilateral criteria.<sup>64</sup>

Redressing the unequal balance in the cost for petroleum imports will be an overriding objective for OLADE members. Yet, despite the inclusion of both Latin American importers and exporters in the organization's membership, securing import price controls will pose a most difficult task.

One feasible alternative for exerting regional influence over hydrocarbon imports' price-cost structure — which OLADE should consider — is promoting competition and diversification among local energy producers. Competition carries a strong incentive for reducing costs, whether through facilitating technological advancement or achieving greater efficiency in production and marketing procedures. Similarly, further industrial diversification could foster more competition by proliferating the amount of available energy sources, as well as the number of competing energy suppliers. Diversification of energy-producing industries throughout Latin America, therefore, should be a crucial ingredient in OLADE's policies if regional energy supplies are to be maintained in sufficient quantities for member countries.



In addition, through a competitive regional market structure both OLADE's producer and consumer members' interests would be enhanced substantially. Energy reserves would be kept available relative to the pervasive economic conditions of supply and demand. OLADE concurrently must strive to prohibit petroleum producing countries or their State companies from obtaining a dominant, monopolistic position over hydrocarbon prices. Pursuant to the latter aim, regionwide legislation should be designed and activated to discourage any undesirable aggrandizement of market power by particular industrial groups or national governments.

A creative suggestion now receiving wide circulation concerns originating a financial scheme to re-cycle accumulated surplus funds from regional petroleum exporters back to deficit importers.<sup>65</sup> Should such a plan prove feasible in Latin America, presumably Venezuela (and to a far lesser extent Bolivia, Ecuador, and Trinidad and Tobago) would remit a specified portion of their windfall revenues to other Latin American nations. This inter-American aid might be funnelled through a regional intermediary (logically OLADE's Permanent Secretariat) or sent directly to needy importers.<sup>66</sup> Regardless of the manner executed, a re-distribution type of energy assistance for Latin America would take on a significance transcending conventional notions of "foreign aid," in addition to underscoring the region's ability to effectuate meaningful economic integration.

In today's quest for modernization, certain prominent expectations largely have determined the overall economic policy for every developing nation. Foremost among these are sustaining steady industrialization; insuring consumer price stability; acquiring full employment; and, reaching a favorable balance-of-payments trade status. Petroleum-derived energy obviously contributes in great part to securing the above mentioned goal-values for Latin America, especially since the fundamental prerequisite for any kind of regional economic growth is maintaining sufficient, reliable, and regular provisions of commercial energy.

Hence, OLADE must endeavor to legally insure, within the appropriate context of each member nation's own economic and social guidelines, that energy requirements are met in a manner most amenable to the entire region. On this account, it would be impractical, if not overtly detrimental, for OLADE to seek the lowest possible import costs or cheapest possible petroleum prices when their acquisition served to undermine basic socio-economic goals or individual national security considerations. As a consequence, OLADE will have to undertake studies and make definitive recommendations in order to reach acceptable policies among these diverse regional priorities.

Still another focus for OLADE's immediate attention is couched in promoting extensive investment opportunities in energy-producing nations. To illustrate this vital need, recent projections released by the U.N. Economic Commission for Latin America estimate petroleum and natural gas consumption to be 252 million cubic metres by 1980, whereas only 156 million cubic metres were consumed in 1970.<sup>67</sup> The investment capital required to compensate the present decade's projected acceleration of hydrocarbon consumption is calculated to be \$18,200 million, of which exploration and research would absorb \$10,999 million and refinery expansion a further \$3,440 million.<sup>68</sup> Without commensurate investments, Latin America's fuel demand soon will outstrip its production capability, and thereby aggravate an already deteriorating energy situation.

Not to be overlooked in scrutinizing OLADE's legal purview is the furtherance of both national and regional energy research-development programs. At the same time, however, there must be expedient legislative measures enacted to protect human health and the natural environment from energy pollutants. Admittedly, defining the boundaries and concentrations of energy pollution problems are difficult: such issues involving the interactions of energy and environment cannot be solved merely by an overemphasis on either energy needs or environmental restoration alone. Therefore, OLADE's official policy must be sought in Latin America's special energy requirements and particular ecological circumstances, consonant with specific regional development strategies as perceived by energy-conscious government leaders.

## CONCLUSION

OLADE is not the panacea for all Latin America's energy problems, nor can it anticipate discovering easy, all-encompassing solutions for potential regional confrontations. Moreover, OLADE cannot expect to construct a sound financial structure for the region's energy sector solely by applying daily, piecemeal measures. Imperative energy policies will have to be hammered out sagaciously against a background perspective of possible long-term effects, while also taking into account both local energy and regional economic plans. In other words, the area's energy crisis cannot be viewed as an isolated phenomenon; its repercussions acutely affect all aspects of Latin America's industro-economic livelihood. Thus, near-term priorities must be established carefully so as not to impede declared long-range regional objectives.

Coincidentally, OLADE's decision-making polity (the Meeting of Ministers) must retain considerable flexibility. Changes in energy conditions can be—as distressingly demonstrated in the recent past—capricious and unpredictable, with far-ranging impacts. Hence, OLADE's energy strategies and specified prescriptions for Latin America's developmental progress should not be so rigid to obscure the inevitable uncertainty characterizing all forecasts and predictive studies. Accordingly, setting regional standards and spelling out boundaries for OLADE's supervisory responsibility (in addition to working for their achievement by incorporating resolute measures and then testing the efficacy of each measure) must be implemented as a continuous process.

There is much promise for inter-American energy cooperation under the auspices of OLADE. Opportunities exist for clarifying new means to institute comprehensive regional energy policies; for analyzing policy choices between various governmental options; for ferreting out possible reasons for conflict over energy resources; and for avoiding the spread of local energy problems to neighboring parts of the region.

Hopefully, the signatory governments of OLADE can steer their energy programs in an unselfish direction which is conducive to prudent hydrocarbon utilization, as well as greater economic integration and symbiotic social action. During the last few months, prospects have improved optimistically for genuine OLADE cooperation along these lines: Venezuela and Ecuador have begun espousing their open willingness to participate in a redistribution-of-wealth plan for needy importer nations;<sup>69</sup> perhaps more important, Argentina and Brazil have tacitly settled an interpretative dispute concerning a provision in the Lima Agreement;<sup>70</sup> and OLADE's next convention is scheduled to meet in Buenos Aires during early August, 1974.<sup>71</sup>

In the final analysis, OLADE will provide a convenient forum wherein member states can exchange fruitful ideas and pertinent information. But OLADE's creation represents more than this. It symbolizes the political ability of national governments to unite in a concerted effort for confronting a common, urgent challenge. Through OLADE's political machinery, the member governments now have the opportunity to more wisely interpret the energy crisis by identifying its basic causes, and then formulating policies aimed at a vigorous regional economy—one which seeks to improve the existent standard of living for all Latin America's peoples.

Tables A-1 and A-2  
**LATIN AMERICA: GROSS PRODUCTION AND CONSUMPTION OF COMMERCIAL ENERGY  
 AND VEGETABLE FUELS, 1970**  
 (Thousands of tons of petroleum equivalent of 10 700 kJ/kg)

Country	Production					Consumption						
	Coal	Crude oil	Natural gas <sup>a</sup>	Hydro- electricity <sup>b</sup>	Vegetable fuels and other <sup>c</sup>	Total	Coal	Petroleum product	Natural gas	Hydro- electricity <sup>b</sup>	Vegetable fuels and other <sup>c</sup>	Total
Argentina	349	20 519	6 669	454	1 755	29 746	828	20 136	5 309	454	1 755	28 468
Bolivia	—	1 150	900 <sup>c</sup>	193	812	3 055	—	500 <sup>c</sup>	70 <sup>c</sup>	193	812	1 569
Brazil	1 128	8 199	1 100	11 921	16 101	38 449	2 410	23 413	98	11 921	16 101	53 571
Chile	972	1 620	6 636	1 288	1 032	11 548	1 327	4 424	500	1 288	1 032	8 531
Colombia	1 822	11 073	2 584	1 857	3 357	20 693	1 822	4 997	1 200 <sup>c</sup>	1 857	3 357	13 181
Costa Rica	—	—	—	281	326	607	—	419	—	281	326	1 014
Cuba	—	174 <sup>c</sup>	—	—	3 529	3 703	—	6 600 <sup>c</sup>	—	—	3 529	10 129
Ecuador	—	198	—	121	1 434	1 753	—	1 100 <sup>c</sup>	—	121	1 434	2 651
El Salvador	—	—	—	150	635	785	—	528	—	150	635	1 297
Guatemala	—	—	—	102	945	1 047	—	756	—	102	945	1 798
Guyana	—	—	—	—	309	309	—	440 <sup>c</sup>	—	—	309	749
Haiti	—	—	—	—	1 131	1 131	—	120 <sup>c</sup>	—	—	1 131	1 251
Honduras	—	—	—	63	485	548	—	376	—	63	485	919
Jamaica	—	—	—	36	450	486	—	1 410 <sup>c</sup>	—	36	450	1 895
Mexico	1 749	25 414	16 300	4 426	6 494	54 383	2 081	21 703	10 619 <sup>c</sup>	4 426	6 494	45 141
Nicaragua	—	—	—	96	437	533	—	473	—	96	437	990
Panama	—	—	—	26	198	224	4 <sup>c</sup>	544	—	26	198	771
Paraguay	—	—	—	46	430	476	—	192	—	46	430	670
Peru	44	3 844	1 914	1 134	1 988	8 924	55 <sup>c</sup>	4 584	100 <sup>c</sup>	1 134	1 988	7 834
Dominican Republic	—	—	—	26	1 107	1 133	—	480 <sup>c</sup>	—	26	1 107	1 612
Surinam	—	—	—	—	63	63	—	500 <sup>c</sup>	—	—	63	563
Trinidad and Tobago	—	7 304	2 656	—	380	10 340	—	1 700 <sup>c</sup>	1 392	—	380	3 472
Uruguay	—	—	—	330	88	418	21	1 548	—	330	88	1 977
Venezuela	25	193 659	42 131	1 205	758	237 778	252	6 407	7 812	1 205	758	16 397
Latin America	6 089	273 154	80 890	23 755	44 244	428 132	8 800	103 350	27 100	23 755	44 244	207 249

<sup>a</sup>Source: ECLA, on the basis of official sources.

<sup>b</sup>Production appears to be substantially greater than consumption due to the inclusion of unused gas surpluses which are burned in the atmosphere as pumped back into the wells.

<sup>c</sup>In order to express the hydro-electricity generated in terms of petroleum equivalent, the equation 1 KWH = 3 220 kJ/kg is used. This corresponds to the average caloric energy needed in the area to generate 1 KWH.

<sup>d</sup>Estimate.

TABLE A-3  
 Petroleum Crude: Reserves for Countries of Latin America  
 and the Rest of the World, 1965-1972  
 (In millions of barrels)

Countries and Regions	1965	1966	1967	1968	1969	1970	1971	1972
<b>ALALC</b>								
Argentina	2 900	3 045	2 950	1 761	1 573	1 573	2 000	2 466
Brazil	672	1 000	1 100	822	852	857	856	798
Mexico	2 494	2 650	5 486	2 744	5 570	2 879	2 837	2 833
<b>Andean Group</b>								
Bolivia	500	500	500	580	500	300	262	220
Colombia	1 700	1 800	2 000	1 030	1 600	1 580	1 626	1 598
Chile	150	150	150	140	131	120	120	123
Ecuador	25	25	310	1 000	3 000	6 000	6 071	5 964
Peru	300	350	500	500	490	500	510	500
Venezuela	17 229	16 852	15 938	15 701	14 949	14 029	13 744	13 855
Subtotal ALALC	25 970	26 372	28 934	24 278	28 665	27 838	28 026	28 357
<b>Caribbean Free Trade Association</b>								
Trinidad and Tobago	425	450	525	525	590	605	1 054	1 576
Total: Latin America	26 395	26 822	29 459	24 803	29 255	28 443	29 080	29 933
<b>United States</b>	31 352	31 452	31 377	30 707	29 632	39 001	38 063	36 339
Canada	6 711	7 792	8 169	8 382	8 559	8 559	8 334	8 020
Middle East	227 777	240 913	246 986	319 156	329 050	341 940	352 126	352 621
European Common Market	1 435	1 520	1 510	523	1 238	3 950	4 441	6 604
Other European Countries	757	740	971	377	378	2 490	1 892	3 831
Soviet Union and East Europe	37 268	40 308	38 752	61 560	60 074	59 550	52 608	54 856
South Asia and the Orient	10 079	10 167	10 202	9 505	11 540	11 572	14 432	14 804
Africa	22 978	28 053	33 993	39 203	45 115	46 317	52 926	53 473
Oceania	70	200	1 026	1 715	1 827	1 775	2 104	1 800
Total: World	349 961	387 985	402 468	496 230	516 698	543 609	556 023	562 298

Source: Venezuela Minister of Mines and Hydrocarbons.

## NOTES

<sup>1</sup>*Convenio que Establece la Organización Latinoamericana de Energía* (Agreement Establishing the Latin American Energy Organization), done at Lima, Peru, November 2, 1973. English translation reprinted in *13 Int'l Legal Materials*, 376-389 (1974). [Hereinafter cited as *The Lima Agreement*]. The signatory states were: Argentina; Bolivia; Brazil; Colombia; Costa Rica; Cuba; Ecuador; El Salvador; Guatemala; Guyana; Honduras; Jamaica; Mexico; Nicaragua; Panama; Paraguay; Peru; Dominican Republic; Trinidad and Tobago; Uruguay; and Venezuela. Although Chile attended, it did not then sign the document, but is expected to do so in the near future. Headquarters for OLADE were designated in Quito, Ecuador.

<sup>2</sup>The Organization of Arab Petroleum Exporting Countries (OAPEC) was formed in 1968, and includes as members Saudi Arabia, Kuwait, the United Arab Emirates, Libya, Egypt, Omona, Iraq, Syria, Qatar, and Bahrain. OAPEC's sister cartel, the Organization of Petroleum Exporting Countries (OPEC), counts in its membership, Abu Dhabi, Algeria, Iran, Iraq, Kuwait, Lybia, Nigeria, Qatar, Saudi Arabia, and two Latin American countries, Venezuela and Ecuador. Trinidad and Tobago has petitioned for OPEC membership, but presently only enjoys observer status. Peru expects to acquire OPEC membership by 1976. For general histories of OPEC, see Z. Mikdashi, *The Community of Oil Exporting Countries* (1972) and F. Rouhani, *A History of O.P.E.C.* (1971).

<sup>3</sup>The OAPEC oil embargo, which was activated officially on October 17, 1972 by the "Kuwait communiqué," came during the Arab-Israeli Yom Kippur War and was designed to generate pressure from the target nations against Israel. As formally stated, the OAPEC consortium's prime objective was to compel Israel's withdrawal from Arab territories captured during the 1967 Six Day War. *House Comm. on Foreign Affairs, The United States Oil Shortage and the Arab-Israeli Conflict*, H.R. Res. 267, 93rd Cong., 1st Sess. 13 (1973).

Within two weeks of the announcement of the reduction policy, the total cutback in Arab oil exports was over 20 percent of September, 1973 production levels. By their actions, the Arabs took 4 million barrels of oil per day out of world commerce, which translated into an equivalent shortfall of nearly 12% of the total volume of oil moving in world trade. *Id.*

However, following fruitful peace negotiations between U.S. Secretary of State Henry Kissinger and Arab-Israeli leaders, the embargo was lifted for all nations except the Netherlands on March 18, 1974. *N.Y. Times*, Mar. 19, 1974, at 1, col. 1.

<sup>4</sup>Economic Commission for Latin America (ECLA), *Offprint: Recent Production and Consumption of Energy in Latin America*, 4 (November, 1973). [Hereinafter cited as *ECLA Offprint*].

<sup>5</sup>*Id.* at 4. See Appendix, Tables A-1 and A-2.

<sup>6</sup>*Id.* at 5.

<sup>7</sup>*Id.* at 7.

<sup>8</sup>*Id.*

<sup>9</sup>*Id.* at 9.

<sup>10</sup>*Id.*

<sup>11</sup>*Id.* By 1970, Latin America's share of proven world petroleum reserves was only 4 percent, contrasted with 9% in 1961. Moreover, its reserve production ratio (i.e., the estimated period before reserves were exhausted) was only 21 years, as compared to the world average of 35 years and the Middle East's average of 67 years. See Table A-3 in Appendix.

<sup>12</sup>Economic Commission for Latin America, *Energy in Latin America*, 15 *Economic Bulletin for Latin America*, 5 (1971). [Hereinafter cited as *Energy in Latin America*].

<sup>13</sup>*Id.*

<sup>14</sup>The paramount importance of the petroleum industry to Latin American exporter governments recently was demonstrated by Carlos Andrés Pérez's victory in Venezuela's presidential election. See *Venezuela: Strong Government*, 8 *Latin America*, July 5, 1974, at 205; and *Latin America: Oil Conferences*, 8 *Latin America*, May 31, 1974, at 161.

<sup>15</sup>*Energy in Latin America*, *supra* note 12, at 13.

<sup>16</sup>During 1971, Venezuela's production of crude oil declined 4.3%, thereby decreasing the total regional output by 2.4%. This production decrease continued into 1972, reaching a level of 9.3%. ECLA *Offprint*, *supra* note 4, at 7. See also *Venezuela's Oil: Running Dry*, *Economist*, Dec. 23, 1972, at 70.

<sup>17</sup>For an enlightening discussion of petroleum developments in the Middle East-North African region since 1971, see *Schuler, The International Oil Debacle Since 1971*, *Petroleum Intelligence Weekly*, Apr. 22, 1974 (Spec. Supp.).

<sup>18</sup>ECLA *Offprint*, *supra* note 4, at 9.

<sup>19</sup>*Id.*, at 9, 11.

<sup>20</sup>Formerly Colombia's second ranking export, crude petroleum has plummeted from 16% of export values in 1965, to 8% in 1970, and to merely 2% in 1973. However, Colombia's exports of refined petroleum products have increased, and considering higher international oil prices, they should still bring in \$45 million in 1974. 9 *Colombia Today* (No. 4, 1974), at 2.

<sup>21</sup>ECLA *Offprint*, *supra* note 4, at 12. Despite this refinery expansion, consumption of petroleum fuel products increased at an average rate of 6.2% during the same period (from 68 million to 116 million cubic metres).

<sup>22</sup>*Id.* For a breakdown of each Latin American country's crude petroleum refining capacity from 1961-1970, see Table A-11 in ECLA *Offprint* Annex, at 51.

<sup>23</sup>*Energy in Latin America*, *supra* note 12, at 19-20.

<sup>24</sup>ECLA *Offprint*, *supra* note 4, at 11.

<sup>25</sup>*Id.* Mexico's imports of refined petroleum products grew from 338,000 cubic metres in 1961 to 1,940,000 cubic metres in 1970.

<sup>26</sup>*Id.* at 10.

<sup>27</sup>*Id.*

<sup>28</sup>*Id.* Monetary figures cited throughout this article are in United States dollar equivalents.

<sup>29</sup>Organization of American States (Dept. of External Cooperation), *The Petroleum Crisis: Financial and Economic Implications for Latin America* (unpublished monograph), 15 (Feb. 1974). [Hereinafter cited as OAS Monograph]. Recent projections for Brazil's 1974 petroleum import bill range as high as \$3 billion. *Next Goal is World Power and Brazil is on Its Way*, 77 *U. S. News and World Report*, July 22, 1974, at 62.

<sup>30</sup>Figures are from *Latin American Prospects*, 41 *The Petroleum Economist*, Jan. 1974, at 25.

<sup>31</sup>Oil prices were dramatically increased during 1973. In January, 1973, the posted price for crude was \$2.59 per barrel. By December, oil-producing countries

in the Persian Gulf area had raised their posted prices to \$11.65 per barrel of crude, and Latin American exporters followed suit, led by Venezuela's world record price of \$14.08 per barrel. *N. O. Times Picayune*, Dec. 29, 1973, at A-1, col. 6. Venezuela again boosted its posted price another 35 cents in June, 1974. See The Organization of American States, *Bulletin of International Prices of Basic Products*, SG/Ser. G/39, PB/III.6 (June 1974).

<sup>32</sup>OAS Monograph, *supra* note 29, at 18.

<sup>33</sup>*Id.* Of these regional imports, Venezuela supplies more than 90 percent. See text at note 19, *supra*. However, it should be noted that Venezuela's petroleum exports to Central and South America in 1973 fell almost 14 percent to 128,000 b/d. *Petroleum Intelligence Weekly*, Apr. 15, 1974, at 9.

<sup>34</sup>A percentage classification of Latin America's dependency upon net petroleum imports to meet national demand (in 1971) reveals the following:

Percentage Dependency	Crude Import Dependency			
	0-25%	25.1-50%	50.1-95%	95.1-100%
	Argentina	Peru	Brazil	Paraguay
	Mexico		Chile	Uruguay
			Ecuador	Costa Rica
			Panama	El Salvador
				Guatemala
				Honduras
				Nicaragua
				Barbados
				Jamaica
				Dominican Republic
				Haiti

Source: OAS data.

<sup>35</sup>Colombia is excluded because of recent declines in petroleum exports. See note 20, *supra*.

<sup>36</sup>OAS Monograph, *supra* note 29, at 13.

<sup>37</sup>On a global scale, Robert S. McNamara, President of the World Bank, has stated that harmful economic repercussions upon poor countries resulting from the "energy crisis," could conceivably bankrupt the International Development Association. *N. Y. Times*, Jan. 29, 1974, at C-16, col. 3.

<sup>38</sup>For a discussion of these two earlier conferences, see *Carta Información*, Sieca No. 145 (Guatemala, Nov. 1973), at 14-19.

<sup>39</sup>At this writing, only seven signatory states—Ecuador, Peru, Cuba, Bolivia, Jamaica, Guyana, and Trinidad and Tobago—have ratified the Lima Agreement. *Latin America: Energy Together*, 8 *Latin America*, June 28, 1974, at 197. Venezuela, Argentina, and Brazil are expected to ratify before October, 1974.

<sup>40</sup>The Lima Agreement, *supra* note 1, art. 2.

<sup>41</sup>*Id.* art. 3.

<sup>42</sup>*Id.* arts. 9, 10.

<sup>43</sup>*Id.* art. 10(a), (b).

<sup>44</sup>*Id.* art. 10(d), (e), (f), and (g).

<sup>45</sup>*Id.* art. 10(h).

<sup>46</sup>*Id.* art. 10(j).

<sup>47</sup>*Id.* art. 11.



<sup>48</sup>*Id.* art. 12.

<sup>49</sup>*Id.* art. 14.

<sup>50</sup>*Id.* art. 18(a).

<sup>51</sup>*Id.* art. 18(c).

<sup>52</sup>*Id.* art. 19.

<sup>53</sup>*Id.* art. 20. The Executive Secretary must be a citizen from a member state and reside in the host country, i.e., Ecuador. As set forth in Article 21, the "minimum requirements" for the Executive Secretary's post are as follows:

- (a) A degree in law, engineering, economics science, administration, or any other energy-related field granted by an accredited university; and
- (b) Experience in energy-related matters; experience in responsible executive or administrative positions; and knowledge of at least two of the working languages of the Organization. [i.e., Spanish, English, Portuguese, and French].

<sup>54</sup>*Id.* art. 20(d).

<sup>55</sup>*Id.* art. 20(e).

<sup>56</sup>*Id.* art. 20(f).

<sup>57</sup>*Id.* art. 20(h).

<sup>58</sup>*Id.* art. 20(i).

<sup>59</sup>*Id.* art. 20(j).

<sup>60</sup>*Id.* art. 20(k).

<sup>61</sup>See generally M. Mughraby, *Permanent Sovereignty Over Oil Resources* (1966).

<sup>62</sup>State-owned companies in the Asistencia Recíproca Petrolera Estatal Latinoamericana (ARPEL) include: Argentina's Yacimientos Petrolíferos Fiscales (YPF); Bolivia's Yacimientos Petrolíferos Fiscales (YPFB); Brazil's Petróleo Brasileiro (PETROBRAS); Colombia's Empresa Combombiana de Petróleo (ECOPETROL); Cuba's Empresa Estatal; Mexico's Petróleos Mexicanos (PEMEX); Peru's Petróleos del Perú (PETROPERU); Uruguay's Administración Nacional de Combustibles, Alcohol y Portland (ANCAP); and Chile's Empresa Nacional del Petróleo (ENAP). ECLA *Offprint*, *supra* note 4, at 53.

<sup>63</sup>*Pouring Talk on Oily Waters*, 1 *Latin America Economic Report*, Nov. 23, 1973, at 19.

<sup>64</sup>*Id.*

<sup>65</sup>Although Venezuela's Minister of Mines and Hydrocarbons, Hugo Pérez La Salvia, emphatically stated that no regulation exists under which a nation must sell its oil to importing countries at low prices, Venezuela has advocated establishing a fund for financing investments in the energy sector to distribute revenues back to the "have not" importing countries. *The Petroleum Economist*, *supra* note 30, at 25. For an introspective evaluation of such a re-cycling scheme, see OAS Monograph, *supra* note 29, at 21-34.

<sup>66</sup>Dr. Raoul Prebisch has openly suggested that surplus oil funds should be recycled directly to developing countries, asserting that:

This would permit relief for the external payments deficit; support the expansion of their export industries; and as the purchases of developing countries increased, they would buy back the capital goods and other products from

the industrial countries—thus relieving their payments deficits. Recycling would then be three-cornered and add to the general level of world prosperity as contrasted with the present threat of contraction.

OAS Monograph, *supra* note 29, at 29.

<sup>67</sup>*ECLA Offprint, supra* note 4, at 30.

<sup>68</sup>*Id.* For a detailed analysis of the projected consumption volumes vis-à-vis requisite investment values, see *Energy in Latin America, supra* note 12, at 76-83.

<sup>69</sup>*Latin America: Energy Together, supra* note 39, at 197.

<sup>70</sup>*Id.* The dispute between Brazil and Argentina concerned the necessity of inserting a "prior consultation" amendment into the Lima Agreement. Although Argentina adamantly favored such a clause, conclusion of a working agreement with Brazil on the Great Parana hydroelectric projects conciliated its position. See *River Plate: General Stroessner and Friends*, 8 *Latin America*, June 14, 1974, at 177.

<sup>71</sup>*Latin America: Energy Together, supra* note 39, at 197. The August OLADE meeting comes after at least two reported postponements. Notwithstanding this, the major topic of debate likely will be the financing fund for energy development projects.