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Communist Aid Activities in Non-Communist Less Developed Countries 1978

A Research Paper

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*Information available as of 15 March 1979 has been used
in the preparation of this report.*

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Bread-and-butter considerations continued to loom large in both Soviet and East European economic aid programs in 1978. The most dramatic example was the Soviet credits for the development of phosphate mining in Morocco in return for which the USSR is to receive about 10 million tons of phosphates a year for 30 years. Another long-term Soviet commitment of \$1.2 billion to Turkey will provide assistance for expansion of steel and aluminum plants and for erection of power plants and a new refinery. Both of these sizable credits were extended under "framework" accords, which have characterized much of the Soviet aid to LDCs of the past few years.

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Preface

The term *Communist countries* refers to the USSR, the People's Republic of China, and the following countries of Eastern Europe: Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania. Included in this edition also are data on Cuban, North Korean, and Yugoslav aid to and personnel present in LDCs.

The term *less developed countries of the non-Communist world* includes the following: (1) all countries of Africa except the Republic of South Africa; (2) all countries of East Asia except Hong Kong and Japan; (3) Malta, Portugal, and Spain in Europe; (4) all countries in Latin America except Cuba; and (5) all countries in the Middle East and South Asia, except Israel. Kampuchea, Laos, and Vietnam, which became Communist countries in 1975, are reported on for prior years for historical reasons.

The term *extension* refers to a commitment to provide goods and services either on deferred payment term or as grants. Assistance is considered to have been extended when accords are initialed and constitute a formal declaration of intent. The term *drawings* refers to the delivery of goods or the use of services.

The term NEGL refers to a value of less than \$500,000; NA indicates an agreement was signed, but the value was not known. Three dots (. . .) indicate that either no agreement is known to have been signed or no personnel are believed to be present.

**Communist Aid Activities
in Non-Communist
Less Developed Countries
1978**

**The Military Aid Program:
Sales Off, Deliveries Up**

Soviet military agreements fell to \$1.8 billion in 1978 from a record \$5.2 billion in 1977 and an average of about \$3 billion a year in 1973-76 (see table 1). At the same time, deliveries rose to \$3.8 billion from \$3.5 billion in 1977 and scored again as Moscow's most important export to the Third World.

Because of the slide in new Soviet agreements and near-record Chinese (\$90 million) and East European (\$465 million) sales, the USSR failed to maintain its usual 90-percent share of Communist arms aid to LDCs. Sales by East European countries, however, continued to complement Moscow's programs.

Costing Communist Arms

The values used throughout this paper for Communist arms sales and deliveries are expressed in Soviet export prices—ruble prices (translated into dollars at the prevailing exchange rate) that we estimate Communist countries charge LDCs. These prices are used because they are appropriate for (a) comparing Communist military sales to LDCs from year to year, (b) looking at

arms exports as a share of total Communist exports, and (c) estimating the size of LDC debt to Communist countries and its effect on LDC balance of payments. Values used in computing these export prices are derived from price lists for Soviet equipment (constructed from a variety of sources), which are continually updated and adjusted for changes in the dollar value of the ruble used in foreign trade transactions.

While Communist export prices are appropriate for purposes of estimating sales and deliveries to LDCs in this paper, they are not a good measure for comparing Communist-LDC arms transactions with those of the United States or of other Western exporters because they often differ greatly from Western prices for similar equipment. For such comparisons, we use the estimated cost to LDCs if they purchased comparable equipment in the United States. This system of costing raises the dollar values of Communist sales and deliveries (based on export prices) by about one-fourth as shown below for the USSR.

**USSR: Arms Sales and Deliveries to LDCs
in Soviet Export Prices and US Costs of Production**

Million Current US \$

	Sales, Valued at		Deliveries, Valued at	
	Soviet Export Prices	US Cost of Production	Soviet Export Prices	US Cost of Production
1974	4,225	4,695	2,310	2,565
1975	2,035	2,670	1,845	2,420
1976	3,375	4,230	2,575	3,230
1977	5,215	6,165	3,515	4,155
1978	1,765	2,300	3,825	4,980

Table 1

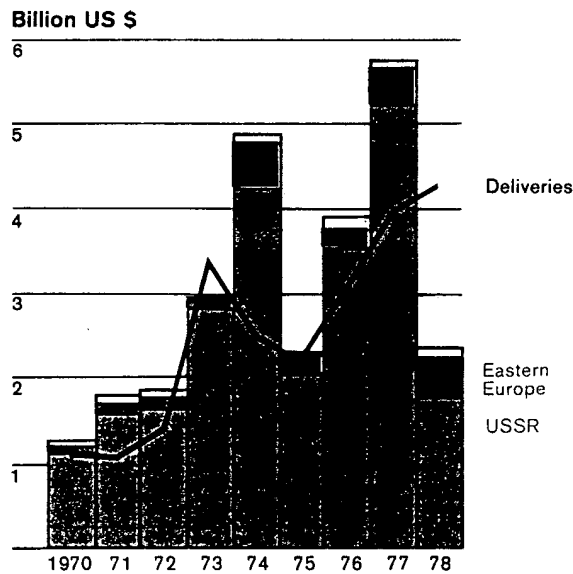
Million US \$

**Communist Military Agreements With LDCs:
Agreements Concluded and Equipment Delivered ¹**

	Agreements Concluded				Equipment Delivered			
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
Total	33,825	29,655	3,255	910	28,675	25,310	2,605	755
1955-68	6,555	5,495	810	250	5,505	4,585	745	175
1969	485	360	125	NEGL	555	450	80	25
1970	1,265	1,150	50	65	1,105	995	80	30
1971	1,790	1,590	120	80	1,045	865	120	60
1972	1,865	1,635	150	80	1,360	1,215	70	75
1973	2,965	2,810	130	25	3,330	3,130	120	80
1974	4,840	4,225	530	85	2,500	2,310	165	25
1975	2,290	2,035	215	40	2,190	1,845	255	85
1976	3,730	3,375	215	145	2,970	2,575	315	80
1977	5,710	5,215	450	50	3,910	3,515	325	70
1978	2,320	1,765	465	90	4,205	3,825	325	55

¹ Components may not add to totals shown because of rounding.

Figure 2: Communist Military Agreements With and Deliveries to LDCs



Patterns in 1978

We do not usually attribute much significance to annual fluctuations in Soviet arms sales. Declines often occur after heavy sales years because LDCs are drawing down earlier contracts and need time to absorb modern weapons into their inventories before placing new orders. However, the recent sales declines also may signal a movement of some major customers into alternative arms markets which could affect future Soviet sales levels.

In contrast, deliveries in 1978 continued at peak rates, as shown in table 2.

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Table 2

Million US \$

Soviet Military Relations With LDCs

	Total 1956-78	1956-73	1974	1975	1976	1977	1978
Agreements	29,655	13,040	4,225	2,035	3,375	5,215	1,765
North Africa	4,965	490	1,825	535	...	1,800	315
Sub-Saharan Africa	3,900	330	365	145	800	1,415	845
East Asia	890	890	...	...	...	...	...
Latin America	650	150	NEGL	55	335	110	...
Middle East	14,960	8,860	2,020	640	2,105	1,235	100
South Asia	4,290	2,320	15	660	135	655	505
Deliveries	25,310	11,240	2,310	1,845	2,575	3,515	3,825
North Africa	3,875	435	150	380	810	925	1,175
Sub-Saharan Africa	2,750	275	90	255	325	585	1,220
East Asia	880	880	...	...	...	...	...
Latin America	630	10	25	60	80	380	75
Middle East	13,800	7,760	1,780	975	1,065	1,125	1,095
South Asia	3,375	1,880	265	175	295	500	260

Commercial Returns From Program

Although recent Soviet initiatives clearly reaffirm Moscow's decision to employ military sales as a means of maintaining a presence in the Middle East and Indian Ocean area, Moscow clearly recognizes the economic benefits involved in arms transactions; for example, it continues to cultivate affluent Arab states and demand hard currency for arms. These exports now cover large annual deficits in Soviet nonmilitary trade with LDCs and significantly supplement Moscow's hard currency earnings. Almost all the arms-for-commodities trade of earlier years has given way to payments in hard currency.

Military Technical Services at New Height

The number of Communist military personnel in LDCs in 1978 rose by more than 50 percent for the second consecutive year. Almost three quarters of the 52,000 instructors, advisers, technicians, and troops were Cubans working in Sub-Saharan Africa, many engaged in actual combat (see table 3). The influx of

over 15,500 Cubans into Ethiopia early in 1978 to counter Somali forces in the Ogaden accounted for most of the increase in the Communist military presence during the year.

The heavy flow of advanced Soviet weapons into LDC inventories has increased the burden on the USSR for training local personnel in the maintenance and use of the equipment. Approximately 1,900 LDC nationals were in the USSR at yearend 1978 for specialized training (see table 4). At the same time, almost 10,800 Soviets and 1,300 East Europeans (20 percent above the number in 1977) were in LDCs. In contrast with recent years, when the largest contingents of Soviet-East European personnel were in Black Africa, most of the increase in 1978 was in North Africa and the Middle East.

Table 3

Number of Persons

Communist Military Technicians in LDCs, 1978¹

	Total	USSR and Eastern Europe	China	Cuba ²
Total	51,400	12,070	680	38,650
Africa	44,655	6,575	590	37,490
North Africa	2,975	2,760	...	215
Algeria	1,015	1,000	...	15
Libya	1,950	1,750	...	200
Morocco	10	10	...	...
Sub-Saharan Africa	41,680	3,815	590	37,275
Angola	20,300	1,300	...	19,000
Equatorial Guinea	290	40	100	150
Ethiopia	17,900	1,400	...	16,500
Guinea	330	100	30	200
Guinea-Bissau	205	65	...	140
Mali	195	180	15	...
Mozambique	1,130	230	100	800
Other	1,330	500	345	485
Latin America	160	150	...	10
Guyana	10	...	...	10
Peru	150	150	...	...
Middle East	5,645	4,495	...	1,150
Iraq	1,350	1,200	...	150
North Yemen	155	155	...	...
South Yemen	1,550	550	...	1,000
Syria	2,580	2,580	...	...
Other	10	10	...	...
South Asia	940	850	90	...
Afghanistan	700	700	...	...
Bangladesh	50	...	50	...
India	150	150	...	...
Pakistan	40	...	40	...

¹ Minimum estimates of the number of persons present for a period of one month or more. Numbers are rounded to the nearest five.

² Includes troops.

Table 4

Number of Persons

**Military Personnel From LDCs
Trained in Communist Countries, 1955-78¹**

	Total	USSR	Eastern Europe	China
Total	52,890	43,790	5,965	3,135
Africa	17,525	13,420	1,400	2,705
North Africa	3,735	3,385	335	15
Algeria	2,260	2,045	200	15
Libya	1,330	1,265	65	...
Other	145	75	70	...
Sub-Saharan Africa	13,790	10,035	1,065	2,690
Angola	60	55	5	...
Benin	20	20	...	...
Burundi	75	75	...	...
Cameroon	125	...	...	125
Congo	855	355	85	415
Equatorial Guinea	200	200	...	...
Ethiopia	1,640	1,190	450	...
Ghana	180	180	...	...
Guinea	1,290	870	60	360
Guinea-Bissau	100	100	...	...
Mali	415	355	10	50
Nigeria	730	695	35	...
Sierra Leone	150	...	...	150
Somalia	2,585	2,395	160	30
Sudan	550	330	20	200
Tanzania	2,855	1,820	10	1,025
Togo	55	...	...	55
Zaire	175	...	...	175
Zambia	130	85	...	45
Other	1,600	1,310	230	60
East Asia	9,300	7,590	1,710	...
Indonesia	9,270	7,560	1,710	...
Kampuchea	30	30	...	...
Latin America	725	725	...	...
Peru	725	725	...	...
Middle East	18,115	15,630	2,485	...
Egypt	6,250	5,665	585	...
Iran	315	315	...	...
Iraq	4,330	3,650	680	...
North Yemen	1,180	1,180	...	...
South Yemen	1,095	1,075	20	...
Syria	4,945	3,745	1,200	...

Table 4

Number of Persons

**Military Personnel From LDCs
Trained in Communist Countries, 1955-78¹ (continued)**

	Total	USSR	Eastern Europe	China
South Asia	7,225	6,425	370	430
Afghanistan	4,010	3,725	285	...
Bangladesh	485	445	...	40
India	2,285	2,200	85	...
Pakistan	430	45	NA	385
Sri Lanka	15	10	...	5

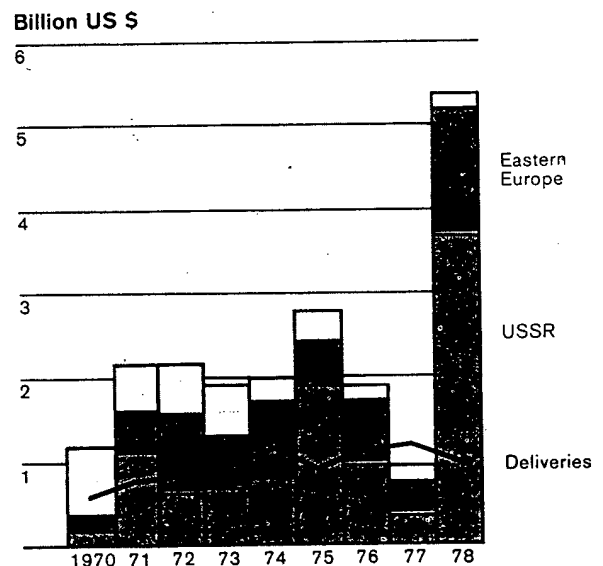
¹ Data refer to the estimated number of persons departing for training. Numbers are rounded to the nearest five.

The Economic Aid Program: In High Gear

Communist countries pledged nearly \$5.4 billion in economic aid to the Third World in 1978, bringing the total Communist commitment since 1954 to \$31 billion. Commitments were at a peak for both the Soviet and East European programs while China's pledges of \$185 million to 16 LDCs showed no change from 1977 level (see table 5).

Moscow's unprecedented \$3.7 billion commitment in 1978 brought its annual program close to US annual aid levels (\$4-5 billion) for the first time. Unlike US aid, which provides large amounts of food assistance and funding of infrastructure development, Soviet aid continued to be almost entirely tied to large industrial projects in the public sector. Moscow continued to ignore calls to adopt a newer, more complex approach to development. This approach—being pushed by certain members of the international aid community—favors assistance to rural development for the satisfaction of basic human needs. The USSR continued to sidestep LDC demands for more concessional assistance and there were few signs of any overall softening in Communist aid terms.

Figure 3: Communist Economic Agreements With and Deliveries to LDCs



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Table 5

Million US \$

Communist Economic Credits and Grants
Extended to LCDs¹

	1954-78			1977			1978					
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
Total	30,930	17,088	9,086	4,756	982	402	397	182	5,394	3,707	1,502	185
Africa	9,007	3,989	2,350	2,668	304	31	154	119	2,708	2,010	627	71
North Africa	4,183	2,918	934	331	92	...	35	57	2,130	2,000	110	20
Algeria	1,332	716	524	92	...	...	...	...	...	...	...	...
Mauritania	105	8	10	87	...	...	...	...	...	...	...	...
Morocco	2,303	2,098	170	35	...	...	...	...	2,089	2,000	89	...
Tunisia	403	96	210	97	92	...	35	57	...	...	...	...
Other	40	...	20	20	...	...	...	...	40	...	20	20
Sub-Saharan Africa	4,825	1,071	1,416	2,338	212	31	119	62	579	11	517	51
Angola	105	17	88	...	6	6	NA	...	77	1	76	...
Benin	49	5	NA	44	...	...	...	...	...	...	...	...
Botswana	17	...	...	17	...	...	...	...	...	...	...	...
Burundi	20	...	...	20	...	...	...	...	...	...	...	...
Cameroon	79	8	...	71	...	...	...	...	...	...	...	...
Cape Verde	6	3	1	2	NEGL	...	...	NEGL	3	3	...	NEGL
Central African Empire	17	3	...	14	...	...	...	...	NEGL	...	...	NEGL
Chad	55	5	...	50	...	...	...	...	...	...	...	...
Comoros	NA	...	...	NA	...	...	...	...	...	...	...	...
Congo	163	28	60	75	3	...	3	...	...	...	...	...
Equatorial Guinea	1	1	...	...	...	...	...	...	...	...	...	...
Ethiopia	302	105	95	102	23	...	23	...	45	NEGL	45	...
Gabon	27	...	2	25	...	...	...	...	2	...	2	...
Gambia	17	NEGL	...	17	...	...	...	...	...	...	...	...
Ghana	241	94	105	42	1	1	...	1	...	...	...	...

Footnote at end of table.

Table 5

Million US \$

Communist Economic Credits and Grants
Extended to LDCs¹ (Continued)

	1954-78				1977				1978			
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
Guinea	405	212	110	83	1	1	1	NEGL	NEGL	NEGL	NEGL	NEGL
Guinea-Bissau	28	11	NA	17	...	...	...	...	...	...	...	...
Ivory Coast	NA	...	NA	...	...	...	...	...	...	...	...	...
Kenya	66	48	...	18	...	...	...	...	...	...	...	...
Liberia	23	...	...	23	23	...	...	23	...	...	...	...
Madagascar	109	20	NEGL	89	...	...	...	...	6	6	NEGL	...
Mali	213	90	23	100	...	...	...	...	1	1	...	...
Mauritius	40	5	...	35	...	...	...	...	...	...	...	...
Mozambique	82	5	17	60	17	5	12	NEGL	2	...	2	...
Niger	54	2	...	52	...	...	...	...	...	...	...	...
Nigeria	87	7	80	...	...	...	...	...	...	...	NA	...
Rwanda	23	1	...	22	...	...	...	...	...	...	NA	...
Sao Tome-Principe	18	...	...	18	...	...	...	...	...	...	...	...
Senegal	103	8	35	60	NEGL	NEGL	...	...	NEGL	...	...	NEGL
Seychelles	4	...	...	4	...	...	...	...	4	...	...	4
Sierra Leone	69	28	...	41	...	...	...	...	...	...	...	...
Somalia	325	164	6	155	NEGL	...	NEGL	...	18	...	...	18
Sudan	387	65	240	82	62	...	62	...	24	...	24	NEGL
Tanzania	423	38	23	362	18	18	...	...	3	...	3	...
Togo	45	...	...	45	...	...	...	...	...	...	...	...
Uganda	31	16	...	15	...	...	...	...	...	...	...	...
Upper Volta	57	6	...	51	...	...	...	...	NEGL	NEGL	...	NEGL
Zaire	103	...	...	103	...	...	...	...	NEGL	...	...	NEGL
Zambia	402	9	62	331	...	...	...	...	12	...	12	...
Other	629	67	469	93	58	...	19	39	381	...	352	29

∞

Table 5

Communist Economic Credits and Grants
Extended to LDCs ' (Continued)

	1954-78			1977			1978					
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
East Asia	1,087	261	552	274	...	...	...	...	170	...	170	NA
Burma	273	16	173	84	...	...	...	...	140	...	140	...
Cambodia	134	25	17	92	...	...	...	...	...	...	...	...
Indonesia	553	214	292	47	...	...	...	...	...	...	...	...
Laos	36	6	4	26	...	...	...	...	...	...	...	...
Philippines	66	...	66	...	...	...	...	...	30	...	30	...
Thailand	NA	...	...	NA	...	...	...	...	NA	...	...	NA
Western Samoa	NA	...	...	NA	...	...	...	...	...	...	...	...
Other	25	...	...	25	...	...	...	...	...	...	...	...
Europe	45	...	...	45	...	...	...	...	...	...	...	...
Malta	45	...	...	45	...	...	...	...	...	...	...	...
Latin America	2,717	964	1,599	154	120	30	90	...	261	15	244	2
Argentina	514	220	294	...	...	...	...	...	...	...	...	...
Bolivia	121	69	52	...	15	...	15	...	...	...	...	...
Brazil	709	88	621	...	...	...	...	...	200	...	200	...
Chile	448	238	145	65	...	...	...	...	...	...	...	...
Colombia	292	211	81	...	...	...	...	...	10	...	10	...
Costa Rica	27	15	12	...	10	...	10	...	...	...	...	...
Ecuador	19	NEGL	19	...	...	...	...	...	...	...	...	...
Guyana	66	NA	30	36	20	NA	20	...	...	...	...	...
Jamaica	77	30	36	11	38	30	8	...	30	...	28	2
Mexico	35	NA	35	...	35	...	35	...	...	...	...	...
Peru	283	25	216	42	1	...	1	...	...	...	...	...
Uruguay	83	52	31	...	...	...	...	...	...	...	...	...
Venezuela	10	NA	10	...	...	...	...	...	...	...	...	...
Other	33	16	17	...	1	...	1	...	21	15	6	...

Table 5

Million US \$

Communist Economic Credits and Grants
Extended to LDCs¹ (Continued)

	1974-78				1977				1978			
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
Middle East	11,092	6,918	3,712	462	148	...	148	...	1,867	1,399	441	27
Cyprus	5	...	5	...	...	...	...	...	...	...	...	...
Egypt	2,464	1,440	890	134	95	...	95	...	...	...	...	...
Greece	8	8	NA	...	...	...	...	...	...	...	...	...
Iran	1,851	1,165	686	...	...	...	...	...	...	...	...	...
Iraq	1,243	705	493	45	50	...	50	...	...	...	...	...
Jordan	26	26	NA	...	...	...	...	...	...	...	...	...
Lebanon	9	...	9	...	...	...	...	...	...	...	...	...
North Yemen	286	143	13	130	...	...	...	...	60	38	...	22
South Yemen	349	204	66	79	3	...	3	...	96	90	6	...
Syria	1,783	768	954	61	...	...	...	...	150	...	150	...
Turkey	2,776	2,380	396	...	...	...	...	...	1,285	1,200	85	...
Other	292	79	200	13	...	...	...	...	276	71	200	5
South Asia	6,981	4,956	872	1,153	410	341	6	63	388	283	20	85
Afghanistan	1,378	1,263	39	76	...	...	...	...	...	...	...	...
Bangladesh	537	304	159	74	63	...	...	63	...	...	...	...
India	2,737	2,282	455	...	340	340	...	...	...	...	...	...
Nepal	213	30	...	183	1	1	...	...	...	...	...	...
Pakistan	1,645	921	126	598	6	...	6	...	250	225	...	25
Sri Lanka	473	158	93	222	...	...	...	...	140	60	20	60

¹ Components may not add to totals shown because of rounding.
Totals represent the sum of known values.

Table 6

Million US \$

**Communist Economic Credits and Grants to LDCs:
Extensions and Drawings ¹**

	Extended				Drawn			
	Total	USSR	Eastern Europe	China	Total	USSR	Eastern Europe	China
Total	30,930	17,088	9,086	4,756	13,440	7,595	3,305	2,540
1954-68	9,491	6,081	2,385	1,025	4,185	2,870	800	515
1969	895	476	403	16	535	355	105	70
1970	1,177	200	196	781	605	390	145	70
1971	2,172	1,126	484	563	795	420	190	190
1972	2,176	654	915	607	860	430	170	260
1973	1,920	714	605	600	960	500	220	240
1974	2,011	816	914	282	1,185	705	230	255
1975	2,811	1,934	511	366	930	500	245	180
1976	1,902	979	773	150	1,145	460	370	315
1977	982	402	397	182	1,225	540	460	225
1978	5,394	3,707	1,502	185	1,010	430	365	215

¹ Components may not add to totals shown because of rounding.

USSR: Record Year for Aid

The \$3.7 billion in Soviet economic aid pledged in 1978 exceeded the 1975 record by 90 percent and brought the 24-year Soviet aid total up to \$17 billion (see table 6).

Large credits to two Western oriented countries—Morocco and Turkey (which accounted for 90 percent of Soviet economic aid extended in 1978)—dominated the sharp recovery in Soviet assistance from the 10-year 1977 low. Both the Moroccan and the Turkish credits were under “framework” accords: the accord with Morocco was signed in 1978, while the pledge to Turkey was a massive expansion of the aid available under the terms of a 1975 accord. More and more in the past several years, the USSR has signed these open-ended agreements which tend to spread aid allocations out over long periods.

The \$1.2 billion commitment to Turkey for expanding Soviet-built steel and aluminum plants and for building power plants and a new refinery more than doubled the size of Moscow's earlier commitment. The \$2 billion credit to Morocco—the largest ever extended by the Soviet Union to an LDC—will provide assistance for exploiting phosphates and building auxiliary facilities for its shipment abroad. In addition to the credits to Turkey and Morocco, the USSR extended \$500 million of assistance to 13 other LDCs in 1978, including: (a) \$225 million to Pakistan for continuing work on the Karachi steel mill; and (b) \$40 million and \$90 million to North and South Yemen, respectively, for cement plants. The Soviets continued to neglect African economic development, giving only minor amounts of aid to seven countries; and East Asia received nothing.

Eastern Europe: Search for Commercial Gains

As in the past, the search for new markets and stable raw materials supplies were important objectives in the East European economic aid program. The most important beneficiaries included:

- Syria, which received \$150 million from East Germany, mostly for cement, textile, and power plants.
- Brazil, which received \$200 million of credits under a new trade agreement in the hope of correcting the growing imbalance in the East German-Brazilian trade account.
- Burma, with \$140 million in new Czech credit.
- Angola, which received \$75 million from Romania.
- Turkey and the Philippines, with lines of credit for \$50 million and \$30 million from East Germany.

Aid Program: Yield to the Soviets

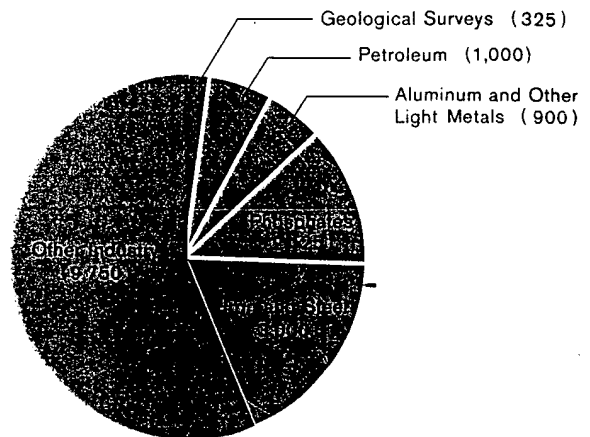
Moscow's continuing interest in relating its aid program to the requirements of the Soviet economy was illustrated in 1978 by (a) the use of nonbinding open-ended agreements, which allow Soviet planners more latitude in scheduling the aid drain on their resources; (b) the tasking of Soviet-LDC joint economic committees to synchronize LDC production plans with Moscow's; and (c) the granting of assistance in areas that fills gaps in the USSR's domestic output.

The widely publicized phosphates deal with Morocco is the latest in a series of Soviet initiatives to assure long-term supplies of certain critical materials for the domestic economy and for its East European allies.

The Council for Mutual Economic Assistance (CEMA), which has attempted since the late 1960s to assure its members a steady flow of important raw materials, has advocated (a) long-term trade agreements with Third World producers and (b) cooperation with LDCs in establishing mining and processing facilities as the most practical way to satisfy those long-term requirements. Recent CEMA studies paint a gloomy picture of deficits for certain basic raw materials in the next 10-20 years, citing shortages of (a) 60-80 million tons of crude oil annually (1.2 million to 1.6 million b/d); (b) 10-20 million tons of iron ore

Figure 4: USSR: Aid to LDC Metals and Minerals Industries as a Share of Total Aid

US \$ 17,100 Million



Unclassified
579899 7-79 CIA

annually; (c) 1.8 million cubic feet of natural gas daily; and (d) huge quantities of nonferrous metals, other minerals, and tropical foods.

The search for stable sources of raw materials was evident in Moscow's earliest accords with South Asian and African countries where the USSR offered to conduct widespread geological surveys, particularly for oil. Since then Soviet geologists have studied metal and mineral reserves in 30 countries throughout the Third World and have explored for oil in 15 countries.

In the past decade, we have noted a more intense Soviet drive to develop new sources of bauxite and alumina for Moscow's aluminum industry. Because its own bauxite became more difficult and costly to find and exploit, the USSR doubled its imports of bauxite and alumina in 1977 over 1970 and now depends on foreign alumina supplies for nearly half its requirements. To ensure future supplies, Moscow has provided assistance to bauxite mining in Guinea, receiving in return 2.5 million tons of ore annually for 30 years. Moscow also has plans to construct alumina capacity

in India, which would assure Moscow imports of up to 500,000-600,000 tons of alumina a year in the 1980s. The Soviets also have offered to build alumina plants in Greece, Guyana, and Indonesia.

Moscow's fisheries program in LDCs has been successful in expanding the scope of the Soviets' own fishing operations. In return for \$260 million of assistance to 40-odd Third World fishing industries, the USSR has gained the use of onshore facilities and fishing rights, which will help maintain the position of its fleet as the largest and most modern on the high seas. In 1976, for example, the USSR's catch from West African waters (1.3 million tons) alone was more than the combined catch of all West African countries. In that year the USSR exported about 470,000 tons of fish valued at \$130 million.

In general, Soviet offers to invest in increasingly costly LDC public sector development plans have met with a warm reception from Third World countries, eager to get on with the development process. In return, LDCs have been willing to commit resources to the Soviets over long periods in order to get development schemes moving.

Technical Services: Largely a Cash-Flow Program

The Communist technical services program—a lucrative outgrowth of the aid program—continued its steep upward climb in 1978, as Communist countries supplied the services of nearly 108,000 technicians to LDCs, about 20,000 more than in 1977 (see table 7). These services were provided both as aid and under commercial contract to 77 countries. The largest increase was in East European personnel (9,000) which in the past four years have set the pace for Communist technical assistance; the Cuban presence doubled in size to more than 12,500; and the USSR sent 5,000 additional technicians. China, which wound up major road construction projects in Rwanda and Sudan, saw its personnel in Sub-Saharan Africa dip below 20,000 for the first time in seven years. This caused most of the 10-percent decrease in the overall Chinese program.

The concentration of Soviet and East European personnel in oil rich states became even more pronounced than before, with 32,500 East Europeans and more than 14,000 Soviets being posted to Algeria,

Libya, Iran, Iraq, and Kuwait. Nearly half the East Europeans abroad (22,000) were in Libya, with Algeria and Syria the next ranking recipients of these services. In some cases the services are financed under aid agreements; in others—especially for nonproject services—they are paid for in hard currency. High and rising salaries have helped make technical services increasingly profitable in the past three years.

Middle Eastern countries continued to employ the largest number of Soviet technicians (11,885) accounting for almost 45 percent of those assigned to LDCs. The Soviet contingent in Africa was only slightly smaller; 70 percent of those assigned to Africa performed professional services rather than project tasks, compared with only about 10-15 percent in the Middle East. On the other hand, Soviet clients in the Middle East and South Asia accepted three-fourths of the 18,200 Soviet personnel posted to development projects, as well as 225 doctors, 750 teachers, and 1,200 geologists. All of the 350 Soviet personnel in Latin America were assigned to development sites.

Cuba continued to support Soviet initiatives in the Third World and expanded its technical efforts into hard currency markets, while maintaining an expanded presence in southern Africa during 1978. For example, Algeria, Iraq, and Libya accepted their first Cuban doctors during the year, nearly 900 of them. The services provided to new areas, together with a near doubling of personnel stationed in Sub-Saharan Africa, brought the Cuban economic presence to about 12,500.

Large new Cuban contingents went to Angola and Mozambique, as Angola gradually shifted from military to civilian forces and as civilian construction work expanded in Mozambique under agreements signed during the year. These contingents are continuing to grow in 1979 and together should total more than 10,000 persons by yearend. This growth continues despite complaints by both countries about the quality and sometimes the integrity of the Cuban cadre.

Technical Training: A Growing Effort

As part of the technical services program, the Communist countries have mounted major efforts to train local personnel to take over the management of development projects. Moscow has gradually cut back on the

Table 7

Number of Persons

Communist Economic Technicians
in LDCs, 1978¹

	Total	USSR and Eastern Europe	China	Cuba
Total	107,185	72,655	22,005	12,525
Africa	74,555	43,805	19,330	11,420
North Africa	37,330	36,165	715	450
Algeria	11,750	11,400	300	50
Libya	22,605	22,200	5	400
Mauritania	360	60	300	...
Other	2,615	2,505	110	...
Sub-Saharan Africa	37,225	7,640	18,615	10,970
Angola	9,910	1,400	10	8,500
Ethiopia	1,400	650	250	500
Gabon	75	10	65	...
Gambia	75	...	75	...
Ghana	175	95	80	...
Guinea	1,035	700	300	35
Guinea-Bissau	405	265	55	85
Kenya	30	25	5	...
Liberia	210	10	200	...
Madagascar	200	...	200	...
Mali	1,025	475	550	...
Mauritius	15	...	15	...
Mozambique	1,270	750	120	400
Niger	160	10	150	...
Nigeria	1,750	1,625	125	...
Rwanda	60	10	50	...
Sao Tome and Principe	260	20	100	140
Senegal	500	100	400	...
Sierra Leone	310	10	300	...
Somalia	3,050	50	3,000	...
Sudan	775	125	650	...
Tanzania	1,365	165	1,000	200
Zambia	5,645	125	5,500	20
Other	7,525	1,020	5,415	1,090
Europe	155	30	125	...
Malta	155	30	125	...

Table 7

Number of Persons

**Communist Economic Technicians
in LDCs, 1978¹ (Continued)**

East Asia	220	85	135	...
Burma	135	10	125	...
Indonesia	20	20	...	...
Other	65	55	10	...
Latin America	1,050	700	160	190
Bolivia	125	125	...	...
Jamaica	125	15	10	100
Peru	205	185	10	10
Other	595	375	140	80
Middle East	25,880	23,890	1,075	915
Egypt	1,025	1,000	25	...
Iran	5,100	5,100	...	...
Iraq	7,115	6,450	250	415
North Yemen	455	155	300	...
South Yemen	2,025	1,075	450	500
Syria	5,950	5,925	25	...
Turkey	1,500	1,500	...	...
Other	2,710	2,685	25	...
South Asia	5,325	4,145	1,180	...
Afghanistan	2,200	2,075	125	...
Bangladesh	255	105	150	...
India	1,200	1,200	...	...
Nepal	285	5	280	...
Pakistan	935	635	300	...
Sri Lanka	450	125	325	...

¹ Minimum estimates of number present for a period of one month or more. Numbers are rounded to nearest five.

number of personnel sent to study in Soviet establishments as in-country training programs have become more efficient and less costly. Only about 3,300 technical trainees—almost all from major Communist partners in Arab countries and South Asia—went to Communist countries in 1978, bringing the total trained since the beginning of the program to over 48,000. Meanwhile, the USSR has provided on-the-job training to 550,000 nationals, 60,000 in Afghanistan alone.

Cuba also continued its large training program by accepting about 1,500 Ethiopian and 1,200 Mozambican school-age children at a new facility on the Isle of Pines that eventually will have a capacity of 20,000 students.

Academic Students: A Low-Cost Investment

Moscow probably has spent close to a billion dollars on Third World student training in the USSR over the past two decades and is spending \$3,000-5,000 annually to support and train each LDC student.

In 1978 the number of LDC nationals in Soviet and East European academic schools rose to more than 45,000 (see table 8). The 26,500 Third World students took up nearly half the places allocated to foreign students, and will increase by one-third under Soviet plans to increase LDC enrollments by 1980. African students, which always have comprised the majority in both Soviet and East European recruitments, rose to a record 23,500, about half the LDC student body in Communist institutions.

Table 8

Number of Persons

Academic Students From LDCs Being Trained
in Communist Countries as of December 1978¹

	Total	USSR	Eastern Europe	China
Total	45,265	26,445	18,560	260
Africa	23,550	13,635	9,755	160
North Africa	3,575	2,035	1,520	20
Algeria	1,925	1,000	925	...
Mauritania	265	205	50	10
Tunisia	525	210	305	10
Other	860	620	240	...
Sub-Saharan Africa	19,975	11,600	8,235	140
Angola	815	165	650	...
Benin	255	235	20	...
Botswana	25	25	...	...
Burundi	250	100	150	...
Cameroon	155	130	25	...
Cape Verde	315	300	15	...
Central African Empire	515	260	250	5
Chad	420	350	60	10
Comoro	20	20	...	...
Congo	1,255	750	505	...
Ethiopia	2,195	1,530	665	...
Equatorial Guinea	250	250	...	...
Ghana	590	315	275	...
Guinea	1,175	775	385	15
Ivory Coast	800	200	600	...
Kenya	645	500	145	...
Madagascar	765	605	160	...
Mali	490	300	190	...
Mauritius	145	110	35	...
Mozambique	360	225	135	...
Nigeria	1,950	950	1,000	...
Rwanda	260	225	35	...
Senegal	285	200	60	25
Sierra Leone	435	380	45	10
Somalia	95	50	45	...
Sudan	1,620	600	1,000	20
Tanzania	815	450	340	25
Togo	310	250	40	20
Uganda	170	140	30	...

Table 8

Number of Persons

Academic Students From LDCs Being Trained
in Communist Countries as of December 1978¹ (Continued)

	Total	USSR	Eastern Europe	China
Sub-Saharan Africa (Continued)				
Upper Volta	350	350	...	...
Zaire	275	25	250	...
Zambia	320	215	105	...
Other	1,650	620	1,020	10
East Asia (Total Only)	35	25	10	...
Europe (Total Only)	20	10	5	5
Latin America				
Latin America	4,650	2,760	1,890	...
Bolivia	170	110	60	...
Brazil	70	35	35	...
Colombia	1,020	490	530	...
Costa Rica	550	350	200	...
Ecuador	825	315	510	...
El Salvador	135	30	105	...
Guatemala	25	25	...	...
Guyana	80	20	60	...
Nicaragua	125	110	15	...
Peru	595	575	20	...
Venezuela	105	50	55	...
Other	950	650	300	...
Middle East				
Middle East	12,155	6,615	5,525	15
Egypt	340	125	215	...
Iraq	490	250	235	5
Lebanon	495	450	45	...
North Yemen	670	575	95	...
South Yemen	680	510	170	...
Syria	3,830	2,135	1,695	...
Other	5,650	2,570	3,070	10
South Asia				
South Asia	4,855	3,400	1,375	80
Afghanistan	1,505	710	795	...
Bangladesh	1,115	800	300	15
India	1,130	1,000	130	...
Nepal	550	525	...	25
Pakistan	210	125	80	5
Sri Lanka	345	240	70	35

¹ Numbers are rounded to nearest five. Most of the estimates are based on scholarship awards.

Appendix Country Sections

North Africa

General

Communist arms transfers and new economic aid agreements with North Africa hit record highs in 1978, giving the region top rank for the first time among Communist military and economic aid clients. The record included (a) Moscow's largest single deal with an LDC (Morocco) and (b) new highs for technical assistance—both economic and military.

Despite the sharp fall in the value of new agreements in 1978, arms deliveries to North Africa soared, and the number of Communist technical advisers nearly doubled. The largest increases were in Libya, which is the fourth largest current Communist arms client and which shares second place with Ethiopia in the Soviet technical presence. Moscow's interest in expanding commercial relations with North Africa was highlighted by the \$2 billion phosphate credit to Morocco.

Algeria

The new Algerian leadership, which took over from the late President Boumediene, confirmed previous radical positions on North African and Middle Eastern affairs. Record arms deliveries demonstrate Moscow's tacit agreement with Algeria in its dispute with Morocco and Mauritania over Western Sahara.

Algeria's growing respect for Western technology and education and its acceptance of Western development loans has eroded some of Moscow's influence in economic affairs. The USSR nonetheless still pursues an active program. It began studies on the aluminum complex which it will build under \$290 million of credits provided in 1977 and began negotiations for constructing a mining and metallurgical complex and possibly a second steel mill—even though Moscow is not interested in building additional steel plants at the moment. The USSR also agreed to construct 22,500 houses in Algiers, Oran, and Skikda and to provide a prefabricated housing plant in 1981. We have noted no action on plans for a heavy electrical machinery

complex, a dam and irrigation works, and oil refineries discussed under a January 1976 framework agreement.

Meanwhile, work continued on installing a second blast furnace at the Annaba steel plant, where nearly 45 percent of Moscow's \$715 million aid program in Algeria has gone. Eastern Europe's \$525 million in development assistance has been almost as important as the USSR's and in many cases Algeria is said to prefer East European technology over Soviet technology. East European countries also are getting into housing construction, where Algeria has mounted a crash program. Hungary, for example, agreed to design dwellings for a public construction firm that will build 500 houses in Annaba, while Poland and Algeria set up a consortium to build thousands of houses under the Algerian Government program to construct 100,000 houses annually. Warsaw will supply construction materials, equipment, and engineering services. Other major Polish projects under consideration include a sulfuric acid plant and a 500,000-ton cement plant. Polish firms reportedly have the inside track on a contract for the \$750 million Mers el-Kebir shipyard, for which Poland already has completed a pilot shipyard which entered production two years ago. Czechoslovakia and East Germany continued work on steel fabricating plants at Medea, while Bulgaria concentrated on dam and irrigation projects.

The number of Communist economic personnel in Algeria climbed to 11,750, led by the 6,000-man Soviet contingent—Moscow's largest in a Third World country. Nearly 5,500 East Europeans worked in Algeria, mostly in administrative jobs including teachers and doctors. Cubans joined other Communist technicians for the first time, 50 medical personnel arrived under a midyear agreement. About 300 Chinese worked in agriculture. With the training of approximately 50,000 Algerians in Communist-built

establishments, Communist countries also have had a decisive role in training Algeria's unskilled labor force and filling gaps in technical services left by the departure of the French in the 1960s.

Libya

Earlier strains between Libya and the USSR have largely faded in the light of political-economic realities that suggest further areas for cooperation. Until now the relationship has hinged on arms agreements with Communist countries, which have provided Tripoli one of the most extensive arsenals outside the Warsaw Pact, and East European technical services for implementing commercial contracts. New equipment displayed in the September National Day parade included MIG-25 jet fighters, SA-9 air defense missile systems, Frog-7 rockets, and Czech L-39 jet trainer aircraft.

During 1978, East European governments concluded the following agreement with Libya:

- An \$80 million Bulgarian contract to install facilities at six hospitals, as well as seven-year agreements for more technical assistance to agricultural, transportation, and industrial projects, and a doubling of the technical presence—which stood at 10,000 in 1978.
- A 10-year East German pact on political, economic, and scientific cooperation whose terms were not announced.
- A technical protocol with Poland for building 440 farms in Libya, in addition to the 1,300 the Poles have already built, and for increased Polish participation in planning, designing, and executing municipal projects.

The billion dollars worth of contracts discussed last year under a 1976 Soviet-Libyan economic agreement are to include (a) a 300-MW nuclear powerplant, (b) a development plan for the gas industry through the year 2000, (c) oil and uranium exploration, (d) a \$400 million research reactor at Tajura, (e) construction of a 650-kilometer gas pipeline, and (f) a 5-million-ton iron and steel plant.

In 1978, China agreed to establish diplomatic relations with Libya. This was followed by their first economic and technical cooperation agreement.

Mauritania

As Mauritania's most important Communist aid donor, the PRC managed to improve its influence with the new Mauritanian Government that took power following a coup d'etat in July 1978. The Soviet position has apparently declined because of hard feelings over the Western Sahara. Romania, the only other East European country with interests in Mauritania, generally sides with Mauritania on international issues.

Notwithstanding the \$500 million in Arab aid and substantial French assistance, which dwarf the \$85 million of Chinese commitments, the PRC is the most popular aid donor in Mauritania. The Chinese-built Nouakchott power plant, which opened with much fanfare in November, covers about 25 percent of the city's needs and eliminates the former daily power outages. Work began on the long-awaited \$55 million Nouakchott deepwater port—one of China's largest current projects in the Third World—and continued on several medical and agricultural undertakings.

Morocco

The 30-year, \$2 billion accord for Soviet development of the Meskala phosphate deposits in southern Morocco, billed by Morocco's King Hassan II as the "contract of the century," is Moscow's largest commitment to a single project in the Third World and marks the first Soviet agreement to import phosphates.

Most of the 10-million-ton annual output from Meskala will be exported to the USSR to repay the \$2 billion construction loan, and as barter for Soviet products. The deal is expected to boost Soviet-Moroccan trade to first place among the USSR's African trade accounts. The present, nearly balanced Soviet-Moroccan trade is supported largely by an annual citrus-for-oil barter agreement, which had made the USSR Rabat's principal source of oil. The USSR and Morocco also established a joint fishing venture in April with a 49-percent Soviet share for which Moscow will provide the know-how and most of the equipment. Morocco's only major military deal was with the USSR.

Morocco's \$90 million in credits from Czechoslovakia, Poland, and Romania were intended to expand equipment sales of these East European nations to overcome the deficits in their trade accounts resulting from their continuing large phosphate purchases. Only Poland's \$14 million loan is allocated to a specific project—the expansion of a phosphate plant at Safi to 500,000 tons. The expanded facility, the fourth such plant built by Polish enterprises in Morocco, will raise the sulfuric acid output from Polish-built plants to 2 million tons annually. The plant is to be completed early in 1982, and will be paid for in phosphates. In 1978, Hungary completed installation of port cranes at Agadir. This was followed up by a similar order for Kenitra port. Morocco continued to express satisfaction with East European technical services, and the number of East Europeans employed in Morocco remained steady at 1,500.

Tunisia

Tunisia's economic agreements with Communist countries do not alter Tunisia's reliance on Western countries, particularly the United States. China and the USSR continued their assistance to water development projects being financed with recent credits. At midyear, Soviet experts completed engineering plans for a dam on the Joumin River, to be funded with \$55 million of 1976 credits, and China sent technicians to begin construction of the Medjerda-Cap Bon Canal under \$90 million of Chinese agreements.

Sub-Saharan Africa

General

The Soviet arms program in Africa continued to draw worldwide attention in 1978, with Moscow reinforcing its position as the Sub-Sahara's largest arms supplier with \$845 million worth of weapons. As a result of emergency support given new Marxist governments in Africa—begun in Angola in 1975 and later extended to Mozambique and Ethiopia—Sub-Sahara accounted for almost half of total Soviet arms sales to the Third World in 1978 and about one-fourth of the record sales in 1977. This compares with less than 5 percent before 1975.

Moscow's economic program in Sub-Saharan Africa in 1978 remained negligible despite continuing demands

for increased aid. New extensions amounted to only \$10 million (to seven countries).

China, which had become the African countries' favorite donor in the early 1970s, extended only \$50 million of new economic aid in 1978, as Beijing focused on its own development problems. Beijing continued to expedite programs under way and concentrated 85 percent of its 22,000 technicians in LDCs in Sub-Saharan Africa, where they worked on agricultural development projects, highways, and railroad projects.

In the following discussion, the African countries with the most important Communist aid programs are treated first, in alphabetic order, then the countries with lesser programs, also in alphabetical order.

Angola

Despite the substantial Communist commitment of men and materiel to the defense effort of the Popular Movement for the Liberation of Angola (MPLA), antigovernment guerrillas still inflicted heavy casualties on government troops in 1978, and Angolans became increasingly frustrated with Communist failure to help control the insurgency and restore economic order. East European nations pushed for closer economic relations even though Luanda was exploring opportunities to reestablish economic and technical relations with the West.

The number of Soviet military advisers in Angola rose above wartime levels, doubling to about 1,000 early in 1978. Soviet officers continue to occupy key positions in Angola's military command and control structure. The Cuban military presence remained at about 20,000.

The European Communist countries and Cuba substantially increased their economic presence in Angola in 1978 through technical services programs, even though the increased activity did not lead to promises of sizable aid resources during the year. Romania accounted for the only specific commitment (\$75 million for development projects) as most agreements remained in the talking stage. Nearly 10,000 Communist technicians worked in Angola, in response to a vigorous Angolan recruitment effort to fill some of the 100,000 or so jobs vacated by the Portuguese at independence.

Other developments included (a) Bulgarian protocols to assist agriculture and urban modernization, (b) a Cuban promise to train 2,500 Angolan technicians in Cuba, (c) delivery of six Soviet fishing vessels as a gift, and (d) a Soviet pledge to establish a 400-hectare wheat farm as a gift.

Moscow's small economic program in Angola has paralleled indifferent Soviet efforts in other African countries, with little interest indicated in developing viable public sector industries. Only aid to Angola's fishing industry, which allows Soviet vessels to trawl Angolan waters, and equipment for training schools has been provided.

Ethiopia

A little more than a year after the USSR switched its support from Somalia to Ethiopia, the Soviet-Ethiopian relationship still was held together largely by Moscow's military assistance program and Ethiopia's growing dependence on Communist countries for technical support. Moscow's economic program still is drawing on \$100 million in credits provided in 1959.

Nearly all of Moscow's massive military assistance was committed prior to and during Ethiopia's successful routing of Somali invaders from the Ogaden early in the year. The commitments rescued the Mengistu regime from almost certain collapse, but did not include sufficient inputs of logistical and technical support to sustain an effective, modern Soviet-equipped fighting force over the long term.

Rumors that the September 1978 economic and technical assistance agreement carried new credits have been discounted. The accord is a general framework agreement typical of others signed by Moscow in the past several years. The September economic agreement called only for formation of a joint commission to oversee existing Soviet economic activities and to study expansion into new areas. Aid for projects that are studied will be provided on an individual basis. The \$80 million outstanding from a \$100 million line of credit arranged in 1959 probably will be drawn before the Soviets proceed with large new binding commitments. In the meantime, Moscow has not initiated any major new aid projects. Soviet aid now falls under a May 1977 protocol that allowed Ethiopia to draw the

1959 credits—\$15 million for commodities and additional sums to expand the Soviet-built Assab refinery by 75 percent and to install a pipeline and oil storage depots in outlying areas. New commitments for agriculture and irrigation projects, now being surveyed in the Awash valley, would require at least \$300 million of credits.

Growing Communist interest in Ethiopia in 1978 led to a doubling of European Communist economic personnel: The 1,400 technicians included 450 Soviet teachers and administrative personnel, 300 East Germans, and 500 Cubans mostly in medical services.

Ethiopia also sent more than 700 first-year students to the USSR in 1978 for academic training, bringing the Ethiopian contingent in Soviet universities to over 1,500. Cuba complemented the Soviet program with 1,260 new scholarships to Ethiopian elementary and secondary school pupils for study on the Isle of Pines.

Guinea

The heyday of Soviet-Guinean economic relations may have passed as President Toure tries to project a nonaligned image and attract more Western aid.

Economic programs languished as Conakry expressed resentment over 15 years of ineffectual Soviet assistance and Moscow failed to offer new assistance for a program that was running out.

East European relations, never robust, became especially tenuous after Guinea switched to hard currency payments. Only Romania offered development assistance in 1978. China, with a long history of aid to Guinea, did not announce new assistance, despite the small balance (about \$3 million) remaining from the \$83 million of Chinese aid.

Mali

Military assistance remained the dominant thread in Soviet-Malian relations, even though Bamako has shown signs of wanting to reduce its dependence on Soviet military supplies.

Mali continues to make airport facilities (most of them built by the Soviets) available to the USSR for its ventures in southern Africa, largely in exchange for military supplies. In the traditional Independence Day parade in September, Mali displayed 38 new Soviet SAMs, MIG aircraft, tanks, and armored vehicles. much of it delivered under 1977 agreements.

Malians continue to grumble about inadequate Soviet economic assistance. Moscow's effort is largely confined to development of the Kalana gold mine and provision of doctors and teachers, who are compared unfavorably with Chinese and French personnel.

China, which has disbursed most of its \$100 million commitment to Mali for agriculture and light industrial projects, is formulating a new blueprint for charting its program in the next decade.

Mozambique

Mozambique's ties with Communist states, which date from military support provided prior to independence from Portugal, have grown along with its dependence on Communist suppliers to maintain its military establishment. Economic aid from Communist countries, centered on technical services, has been disappointing, while Mozambique's Communist military inventory, delivered since 1975, has not permitted Mozambique to maintain a secure frontier. Zimbabwe-Rhodesian forces still mount cross-border operations against guerrilla camps in Mozambique at will.

Communist countries have committed more than \$160 million in economic credits since 1975, but the program still is heavily focused on technical assistance rather than deliveries of equipment and materials. Nearly 1,300 Communist economic technicians were stationed in Mozambique in 1978. China, with nearly \$60 million in credits, has been one of Mozambique's largest donors, but no projects have been initiated under the 1975 credit agreement.

Some Communist activity is to help stem the decline of the formerly thriving agricultural sector. Together, this past year, Bulgaria and the Soviet Union began work on the Limpopo Basin development project. Bulgaria plans to complete the Massinger and Mapai Dams and install a 40-MW power plant at the Massinger Dam in Limpopo Basin. Bulgaria also

signed a contract to construct the Maputo-Cabo Delgado highway under a 1977 agreement. Moscow also pursued geological surveys and the equipping of technical schools. East Germany conducted studies on new projects to be implemented under a 1977 agreement including agricultural development, mineral exploration, fishing, high-tension power lines, a textile plant, and a truck assembly plant. Hungary delivered 50 buses to Maputo probably under a 1975 agreement.

Nigeria

Nigeria's relations with East European governments warmed in the wake of new cooperation agreements in 1978, while relations with the USSR and Cuba deteriorated after Shaba II. Soviet military relations with Nigeria, which grew out of Moscow's support during the Biafran insurgency in 1967, have cooled in the past several years because of concern in Lagos over Soviet policy in Africa.

While Moscow's military presence dropped off, its civilian presence increased to 1,100, represented mostly by technicians working on a \$137 million petroleum pipeline, now scheduled for completion by yearend 1980.

In contrast, East European countries polished their image in Nigeria with a series of new agreements:

- Bulgaria signed an economic cooperation agreement which set up a joint commission to study projects in agriculture, food processing, and public housing.
- Czechoslovakia agreed to provide teachers and other experts under a September agreement.
- Hungary extended the life of a \$26 million 1974 credit for hospital equipment, nearly 25 percent of which has already been contracted for.
- Poland is to send 300 experts to Nigeria and admit 300 Nigerian students annually to Polish universities and technical schools under a two-year technical agreement signed in March.
- Poland and Romania signed agreements to barter goods and services for Nigerian oil, an agreement which Nigeria is no longer anxious to implement.

Warsaw discussed cooperation in shipbuilding, port development, mining, and agriculture, with Nigeria—Poland's largest Sub-Saharan African trading partner—and a joint economic commission was created to explore project possibilities. Romania focused on plans for a new joint shipping line and fishing venture and also put forward proposals for participating in a number of other projects. Until now Romania's largest undertaking is a \$35 million wordprocessing complex, while Poland's major contribution has been to coal mining.

Somalia

A year after the abrogation of the Soviet-Somalian Friendship Treaty, President Siad's search for alternative sources of arms had yielded few results. A number of Western suppliers indicated that they would sell equipment to Somalia once the situation in the Ogaden was normalized. Somalia's Air Force remains largely grounded because of spare parts problems.

In April 1978, President Siad traveled to Beijing to deliver in person a request for emergency military and economic assistance. The Chinese offered training and technical assistance but only nominal amounts of military hardware, which were delivered to Mogadishu shortly after Siad's visit.

While not completely filling the gap left by the departure of the 1,000 Soviet and East European technicians, China maintained its 3,000-man presence of the year before and agreed to provide \$18 million of aid to finish abandoned Soviet projects. Romania, the only East European country still active in Somalia, signed a protocol to provide assistance in agriculture, forestry, and fishing.

Tanzania

Arms contracts with the USSR are the most important link in the Soviet-Tanzanian relationship. Despite Dar es Salaam's suspicions of Soviet motives, Moscow has been the only supplier-willing and able to provide the modern weapons Tanzania has felt it needed to counter Uganda and potentially to support Mozambique against Rhodesian incursions.

The Soviet Union, never really active in Tanzanian development, signed small contracts under a 1977 credit for constructing state farms in Ruvumu and Morogoro and made slow progress on a dam and power plant under earlier credits. While the 15-year-old Soviet economic program languished, China continued to draw on the reservoir of good will remaining from its efforts on the Tan-Zam railroad. Despite a chill in relations caused by China's military support to the unpopular Mobutu regime during the Shaba invasion in May, a thousand Chinese technicians worked in Tanzania on agriculture and mining projects.

Zaire

The escalation of the Shaba conflict (which Zaire suspects was fueled by the Soviets, East Germans, and Cubans) dominated Kinshasa's relations with Communist powers in 1978.

China, trying to capitalize on Zaire's mistrust of Moscow and Eastern Europe, was the only Communist country to support President Mobutu's government against the Katangan secessionists. Emergency small arms and relief assistance were rushed to Zaire during the invasion. On the economic side, China accelerated work on a sugar plantation and refinery under \$100 million in credits and held discussions on a sports complex.

Zambia

President Kaunda remains suspicious of Soviet arms in southern Africa. In the absence of support from the West, however, he has been forced to reconsider Communist offers to upgrade Zambia's defenses against more frequent Rhodesian raids.

At the request of the Tan-Zam railroad authorities, Chinese personnel were brought back to Zambia in 1978 to operate the line because local personnel failed at the job. The railroad (China's largest construction project in the Third World), though officially handed over to Tanzanian-Zambian control in 1976, was to be staffed by 1,000 Chinese technicians for two years. As local personnel completed their training, Chinese technicians had been withdrawn. In 1978 China also continued its assistance to agriculture and mining under a \$51 million credit.

Moscow has completed most deliveries under its \$6 million credit, and East European countries are more active in Zambian development. Romania announced plans to establish a cold storage plant, a tractor assembly plant, a textile plant, a ceramics plant, and a shoe factory under an unused \$50 million credit agreement, signed in 1972. Czechoslovakia provided a \$12 million loan to Zambia for industrial development.

Other Sub-Saharan African Countries

Benin. China remained Benin's only active Communist economic aid donor, and 225 Chinese were working on a stadium and agricultural projects. While new economic cooperation agreements were signed with East Germany in June, and with Bulgaria, Czechoslovakia, Hungary, and Poland in September, these did not carry project commitments. The USSR agreed to provide equipment for an experimental farm under a 1974 agreement and Romania discussed aid to agriculture, light industry, mining, and petroleum.

Botswana. Botswana's two-year aid relationship with China—which until 1978 was based on a small grant of military equipment for Botswana's new defense force—received a shot in the arm as Beijing allocated \$16.6 million of development credits under a 1976 agreement. At yearend, Botswana showed interest in a Chinese offer of doctors but was not expected to act on Moscow's offer to send teachers to Botswana.

Burundi. Romania signed a protocol in November for additional projects in agriculture, industry, mineral development, and for power to complement existing joint ventures: (a) a mining venture which began operations in September and (b) an agricultural company which planted 10,000 hectares in foodgrains and cotton in 1978.

Cameroon. Cameroon continued to draw on more than \$100 million of Chinese credits for building power transmission lines from the Lagdo dam as part of a rural electrification project.

Congo. China continued work on its major project in Congo, the Bouenza Dam and associated rural electrification, while the Soviets continued geological exploration. Late in 1978 Cuba completed Congo's first experimental cattle farm and made plans to open 14 more. Activity is focused on improvement of local breeds, with Cuba already donating several varieties of beef and dairy cattle to the project. During a joint economic commission session early in 1978, Romania signed only a general agreement to continue economic cooperation. Congo has been dissatisfied with Romanian agricultural assistance because of low crop yields.

Djibouti. The USSR and Djibouti established embassy-level diplomatic relations on 3 April 1978.

Ghana. The bloodless coup which brought a Western-oriented government to power in Ghana in July did not affect Communist economic programs, although military deals apparently were shelved. Bulgaria will provide credits for agriculture, fisheries, and light industry, and Hungary signed contracts to supply port cranes. China, still the most active Communist partner in Ghana, continued work on the \$13 million Afife irrigation project, and Chinese technicians arrived to study a glass plant, a sugar plantation, and a refinery—probably under an unused \$22 million 1964 credit. Beijing also offered assistance to construct a rice mill and a ceramics factory and completed a spinning mill it had built for a private Ghanaian firm.

Ghana played host in 1978 to its first Cuban delegation since Nkrumah was overthrown in 1966. Trade in sugar and timber was discussed, and Cuba will consider sending experts to bring Polish- and Czech-built sugar plants up to capacity operation.

Gabon. While maintaining cordial relations with other Communist countries, the pro-Western leadership of Gabon continued to reject ties with the USSR and Cuba because of their threat to African stability. Beijing maintained the only Communist aid presence in Gabon, under a \$25 million agreement.

Guinea-Bissau. The growth in Western economic assistance has begun to erode Communist, particularly Soviet, influence in Guinea-Bissau, while military ties remain strong.

Lesotho. Lesotho was preparing to recognize Cuba at the end of 1978 as a result of a Cuban delegation's visit at midyear.

Liberia. China has been the major beneficiary of Liberia's initiative to improve relations with Communist countries and to improve Liberia's nonaligned credentials. About 200 Chinese are in Liberia working on former nationalist Chinese sugar projects. During President Tolbert's visit to the People's Republic in June, China agreed to provide at least \$23 million of credits under a 1977 agreement for three radio transmitters, agricultural products, and a stadium. China also agreed to establish an alcohol plant at the sugar mill Beijing took over from Taiwan in 1977.

Madagascar. Moscow provided nearly \$6 million of new economic assistance—about half of it grant aid for a YAK-40 aircraft and 200 tractors, all delivered late in the year. Soviet technicians were active in surveys for a cement plant, a flour mill, and a broadcasting station, to be financed under a 1974 credit.

China, still Madagascar's largest Communist donor, moved slowly on major projects to show its disapproval of Antananarivo's closer Soviet ties. Nonetheless, Beijing began equipment deliveries for resurfacing the Tamatave-Moramanga road, Beijing's largest project under a \$55 million 1975 credit. A Chinese medical team also arrived at midyear to serve at the Chinese-built medical center at Vatomandry.

Mauritius. The USSR did not improve its position in Mauritius in 1978, despite early signs of a more upbeat relationship. Mauritius had let its fisheries agreement with the USSR lapse the previous year because the Soviets did not supply enough fish to the local market and failed to fulfill training obligations. Mauritius also accused the USSR of pillaging the Sayha de Malha banks, claimed by Mauritius as part of its territorial waters. Mauritian ship chandlers nonetheless continued their brisk business with Soviet merchant vessels.

China still has not begun work on an airport promised under a 1972 agreement because of the near tripling of original cost estimates. Since Beijing's \$30 million offer was made, inflation has pushed estimated costs into the \$70-100 million range, which now raises doubts about the airport's viability.

Rwanda. Rwanda and China signed a new economic and technical agreement in June 1978 calling for studies of a hospital, sports stadium, flour mill, and ceramics plant. These projects would require additional credits, as funds from the \$22 million agreement of 1972 are nearly exhausted. China also opened an economic and trade exhibit in Kigali in July, the first foreign exhibit ever staged in Rwanda.

Sao Tome and Principe. Communist aid to Sao Tome and Principe (mostly from China) far outshadows assistance from other sources, and Communist influence is pervasive. During 1978, China pledged \$17.6 million in development credits to carry out a December 1975 agreement for rice cultivation, hydropower development, and medical assistance. Moscow's interests are represented by a Cuban technical assistance program that has brought 140 doctors, teachers, and construction workers to Sao Tome. Cuba completed two apartment buildings in 1978 under this program.

Seychelles. The Seychelles received its first Communist economic aid in 1978, a \$3.5 million grant from China for a school on Mahe and a commitment to assist in rice cultivation. In contrast, Seychelles President Rene turned down a Soviet offer for a second time for broad-based fisheries cooperation.

Senegal. Chinese and East European relations with Senegal remained warm in 1978 despite President Senghor's hostility toward Soviet initiatives in Africa. Senegal campaigned against the Soviet/Cuban military presence in Africa but accepted a donation of \$120,000 worth of wheat for drought relief from China, its largest Communist donor. It also signed a protocol under a \$35 million Polish agreement of 1976 for assistance to chemical production (particularly phosphorous fertilizers), food processing, energy, and

light industry. Warsaw also formed a partnership with a local firm to increase trade with Senegal in equipment for the chemical industry and raw materials. Bulgaria agreed in October to provide aid for agriculture, mining, and geological prospecting, while Romania signed a protocol calling for cooperation in developing agriculture, electric power, industry, and mining.

Sierra Leone. China remains the most important foreign aid donor to Sierra Leone with a \$40 million credit agreement which has financed a stadium, two bridges, and 13 agricultural stations. The National Trading Company, the sole importer of Chinese goods, has recently expanded and will buy more of the popular lower cost Chinese goods. The only Soviet venture in Sierra Leone is a joint fishing company, and Moscow again is pressing Freetown to sign a 10-year fisheries agreement, to include construction of a harbor and shore facilities.

Sudan. Soviet-Sudanese relations, broken off in 1977 with the expulsion of Soviet military advisers, did not improve much in 1978 even though diplomatic relations were resumed.

New Communist pledges of economic aid in 1978 came mostly from Czechoslovakia under a new \$24 million credit for housing and other equipment. China and East Germany provided small amounts of relief assistance.

Despite Eastern Europe's recent \$160 million in new credits, China is still Sudan's most effective Communist donor. Chinese technicians completed the second stage of the Hasahaisa textile mill in June and began preparations for a clothing factory associated with the plant. Chinese fisheries development projects at An-Nubah lake, being financed under a \$40 million agreement, also neared completion. Assistance has included 40 fishing boats and two cold storage plants.

Togo. Despite fears of Soviet subversion in Africa, Togo continues to send students to the USSR and in June signed an economic agreement which may lead to Soviet development projects in Togo. East European countries also became more active than before: Hungary signed a \$10 million contract for phosphate mining equipment, and Poland was considering par-

ticipation with a number of Western countries in a \$250-300 million phosphoric acid fertilizer facility in Togo. China began construction of a long-awaited \$6 million dam and irrigation complex on the Sio River, under a \$45 million 1972 agreement. The project will irrigate 660 hectares of rice on completion in 1980. A similar North Korean project on the Mons River seemed headed for failure because of low water levels during the dry season.

Upper Volta. A \$48 million Chinese credit, signed in 1973, is Upper Volta's largest Communist aid pledge. During 1978, China handed over a second rice project, at Banfora, and provided \$200,000 cash for drought relief. The USSR, never a big donor, gave Upper Volta medicines and six 5-ton trucks to carry supplies to drought victims in 1978.

East Asia

General

East Asia, traditionally an area of commercial interest for major Communist aid donors, received \$170 million in economic assistance from Eastern Europe in 1978—all for Burma and the Philippines—as part of Eastern Europe's attempt to erode Western and Japanese dominance of the Asian market.

Burma

Burma received a \$140 million, 16-year, 2.5-percent Czech credit—Rangoon's largest credit from a Communist country—for expanding a Czech-built tractor plant at Malun and setting up plants for diesel pumps and tires. Nonetheless, Burma's relations with China overshadow all others, because of their long common border. Even though China pledged no new aid, it agreed to go ahead with a \$10 million stadium under \$57 million of credits reinstated in 1971.

Indonesia

While Jakarta tried to expand its trade with Eastern Europe, it refused to reopen direct trade with China because of Beijing's continuing support for Indonesian Communist exiles and concern that Beijing would use this as entree into Indonesia's large Chinese community.

Malaysia

Malaysia improved its relations with China despite several unresolved issues. Malaysian-Chinese trade was brought into closer balance by China's purchases of agricultural products, while huge trade deficits remain the dominant theme in European Communist relations with Malaysia because of heavy dependence on Malaysian raw materials.

During the year Kuala Lumpur made public its two-year-old decision against Soviet financing of the Tembeling Dam. While the press speculated that environmental factors prompted the decision, in fact the government was concerned about a large contingent of Soviets operating in a remote area.

The Philippines

Philippine interest in increasing and diversifying its Communist trade was set back by a drop in sugar prices which cut Manila's trade surplus with the USSR by \$100 million. The brightest spot in the trade picture was the Philippine-Chinese five-year agreement incorporating a Chinese oil sales contract. In return for Shengli crude, the PRC will receive sugar, copper concentrates, and agricultural and chemical products.

The East Germans signed a protocol for 1979 in which they agreed to buy Philippine goods worth \$20 million and sell chemicals, fertilizers, and consumer goods worth \$26 million to the Philippines. East Germany also extended a \$30 million credit to finance Philippine imports. Manila agreed to form a joint fishing company with Poland, which would lease Polish vessels under long-term contract. Further possibilities for cooperation in processing and support facilities were discussed. These follow on more than four years of Philippine-Soviet negotiations for a similar joint fisheries operation.

Thailand

New trade and economic cooperation agreements between China and Thailand in 1978 and a pact to exchange military attaches may help reverse the decline in relations that set in after the initial flurry of trade deals following diplomatic recognition in 1975. As the result of a deal completed in December, Thailand will export grain and other agricultural

products in return for 240,000 tons of diesel oil and 600,000 tons of crude. Bangkok also signed trade agreements with Czechoslovakia, Hungary, and Romania.

Latin America

General

European Communist imports of Latin American agricultural goods and minerals have kept Communist trade with the region in deficit for over a decade. The problem worsened after the price inflation of 1973, when annual deficits began to exceed a billion dollars. Communist countries responded with intensive campaigns to sell machinery and equipment, accompanied by threats to shift their purchases to other markets unless major Latin American partners took meaningful steps to balance trade. They urged that purchases be made under outstanding credits and accepted credits for food and raw materials purchases from the more affluent nations, such as Argentina and Brazil.

In 1978 East Germany provided the largest amount of export financing to Latin America. A \$200 million equipment credit was extended to Brazil, in hopes that the aid would not join the \$2 billion of unused earlier Communist funding to Latin America countries. Latin American countries prefer to buy equipment from Western producers and have largely ignored Communist equipment credits.

Even though negotiations usually stretch out over several years, Moscow's sales prospects look best in the power equipment field. During 1978 the USSR was negotiating contracts for several billion dollars' worth of power projects in Argentina and Brazil. Moscow tried to balance its trade with Brazil with oil shipments and began to supply oil to Venezuelan customers in Western Europe for Venezuelan crude to Cuba under a quadrilateral deal. China, in its first oil shipment to the Western Hemisphere, used oil to balance its trade with Brazil.

Argentina

The USSR renewed its sales drive in Argentina in 1978, in order to reduce the widening gap in its trade balance with Argentina, which amounted to almost half a billion dollars by yearend. Moscow intensified efforts to win contracts for the Yacyreta hydroproject and for turbines at Parana Medio. Moscow already has contracted to design the Parana Medio project—a \$2.5 billion multipurpose power and irrigation development—and in October won a contract for two 310-MW generators for a Buenos Aires thermal plant.

East European countries had no better luck than the Soviets in reducing their trade deficit with Argentina, and efforts to induce the Argentines to tap the almost \$250 million of outstanding credits were not successful.

Brazil

Brazil accepted its largest single Communist aid commitment in 1978—a \$200 million credit from East Germany—while Brasilia continued to fend off Soviet overtures to expand their relationship. The new assistance, provided in conjunction with a three-year East German-Brazilian trade agreement, is intended to help correct the serious imbalance in East German-Brazilian trade, a problem common to all of Brazil's Communist trading partners.

Hungary offered to cooperate in building pharmaceutical and alumina plants and to provide Brazil with medical equipment to offset deficits which had reached \$180 million in 1977. Budapest hopes that the \$300 million, three-year trade agreement signed in 1978, calling for Brazilian manufactures and raw materials imports for Hungarian equipment, will bring trade into better balance. Poland also tried to correct its \$100 million trade deficit with a three-year trade agreement which provides for \$500 million in annual trade and includes a coal for iron ore barter deal.

China, which has recorded a total deficit of almost \$250 million in 1974-77, when the People's Republic began to buy from private Brazilian companies, signed its first formal intergovernmental agreement since the establishment of relations with Brazil. The agreement, which specifies hard currency settlements, was followed by contracts to exchange 1 million tons of Brazilian iron ore for 2.5 million tons of Chinese crude

oil over a two-year period, beginning in 1979, with additional amounts expected over the subsequent three years. This is China's first petroleum sale in the Western Hemisphere.

Peru

While frictions over the Soviet military supply program marred Soviet-Peruvian relations in 1978, Moscow's agreement to reschedule Lima's military debt was a positive force for continued cooperation.

For the first year since Peru's weapons purchases from the Soviets began several years ago, no new arms deals with the USSR were concluded in 1978. This was mainly because of pressure from the IMF and others that Lima restrict arms purchases.

Peru's economic relations with Communist countries have not recovered from the economic doldrums of 1976. While Communist countries bought about 15 percent of Peru's exports, they did not pledge further assistance above the \$285 million already committed, and a number of development projects proposed in the early 1970s were still not activated. Even though the USSR completed feasibility studies for the Olmos hydropower and irrigation project (a \$1 billion project which would take 10 to 15 years to build), Moscow made no commitment to go ahead with the facility.

Other Communist countries also had a quiet year on the economic aid front. Czechoslovakia agreed to allocate \$10 million in credits under an existing agreement for a power plant at Iquitos, which had been under discussion for years, and Hungary continued to supply educational equipment under a \$1.3 million contract. Romania, which buys about 450,000 tons of iron ore a year from Peru, proposed the expansion of this trade to include copper, silver, lead, zinc, and other minerals. In 1978, Bucharest consummated a deal for \$6 million worth of railroad equipment and offered to sell a 100,000-ton soda ash plant as well as equipment for Peru's steel industry. Romanian studies for the \$600 million Antamina copper mining project, completed in 1978, had not resulted in a contract at yearend.

Other Latin American Countries

Bolivia. The world's largest tin volatilization plant being completed by the Soviets at Potosi is the centerpiece of Bolivia's economic relations with Communist countries. Plans for Soviet aid to a second plant at Marchamarca are at an advanced stage. In addition, Moscow offered to increase its tin purchases, which now run at about \$40 million a year, making the USSR Bolivia's third most important tin customer after the United States and the United Kingdom. Agreement is expected as well on a Soviet-West German venture to build a \$150 million lead and silver smelter in Bolivia with Soviet technology. A \$10 million equipment contract under a 1976 framework agreement for 10-year credits brought total transactions under that agreement to nearly \$70 million.

Poland completed installation of a \$65 million glass plant built under credit, while Czechoslovakia offered a motorcycle assembly plant and a 10-million-ton steel and scrap metal processing plant.

Caribbean. Dominican Republic. Cuba offered the Dominican Republic assistance in converting sugarcane byproducts to cattlefeed, a major item in the Dominican Republic's program to diversify the sugar industry.

Jamaica. Site preparation was under way at Jamaica's only ongoing Communist project—the Chinese cotton-polyester textile plant at Old Harbour. Jamaica agreed to accept \$28 million in Hungarian credits added to a 1977 trade credit, of which about half was allocated for development projects; the remainder is for consumer goods, medical equipment, pharmaceuticals, and textiles. A Hungarian team arrived at midyear to study joint ventures, including a bicycle factory, an agricultural processing plant, fish farming, and vegetable growing. Cuba will provide assistance to build six schools. About 600 Cubans will work on the project in addition to 40 doctors and other technical personnel. Havana promised for the water supply projects and prefabricated panels plants that Jamaica is building.

Central America. Costa Rica. This country canceled the unused portion of a Soviet trolley bus credit and shelved Romanian plans to extract bauxite under a 1977 agreement. Romania and Costa Rica signed a protocol, however, for cooperation in the exploration of

minerals and for commercial exchanges; Czechoslovakia offered power plant equipment, machine tools, textile plants, and building materials; although Cuba failed to sign a planned trade agreement early in 1978, it signed a memorandum on trade.

Guatemala. A PRC purchase of 200,000 bales of cotton in 1978—about one-third of Guatemala's cotton exports—made China the nation's number one cotton buyer. China has bought a similar amount for 1979, and Guatemalan officials are expected to approve a Chinese request to establish a small commercial office in Guatemala.

Honduras. In its first trade contract with Cuba in 17 years, Honduras bought 2,000 tons of cement from Cuba because the offer included the best prices and delivery terms.

Panama. A Panamanian economic commission to Czechoslovakia, East Germany, Poland, and the USSR drafted commercial agreements and received offers of development assistance from all the countries visited. The Communist countries offered to buy \$10 million worth of bananas a year; Czechoslovakia negotiated a technical cooperation agreement; and the USSR promised to cooperate in constructing the \$800 million 300-MW hydropower plant in Bocas del Toro, first studied by Soviet technicians in 1977.

Chile. The renegotiation by Chile of its Allende-era debts with most Communist countries in 1977 led to a resurgence in trade with nearly all Communist countries in 1978. Chile and the CEMA International Bank for Economic Cooperation agreed on repayment of \$50 million of Chile's six-year-old bank loans for commodities, leaving only about \$20 million of debt to the USSR and \$5 million to Bulgaria still to be negotiated. Previously Chile's relations had been limited to the PRC and Romania.

Colombia. Involvement of Colombia with Communist countries showed little change in 1978, despite public statements by the new government that Communist relations would expand. Designs were completed for the largest Soviet-built power project in Latin America—the Urra hydroelectric project on the Alto Sinu River—to be constructed under the \$200 million credit of 1975.

Colombia announced plans to sign joint venture agreements with Bulgaria for vegetable processing plants and with Poland for a farm machinery plant, and to push sales of coffee in Eastern Europe in return for roadbuilding machinery and power equipment. Colombia's \$150 million annual trade with Communist countries (usually in favor of Colombia) is governed by clearing accounts and settlement in hard currency.

Cuba and China also are upgrading their relations with the new government. A \$1 million mid-1978 contract calls for repair of Cuban ships at Cartagena, and new trade, cultural, and textile cooperation agreements are being studied. China and Colombia are expected to establish diplomatic relations by mid-1979.

Ecuador. The military government of Ecuador continues to discourage ties with the USSR, at the same time that relations with Cuba and Eastern Europe are developing. The Soviet presence is limited to two Soviet technicians who arrived in 1978 to train Ecuadoreans in fisheries techniques. Cuba and Ecuador signed an agreement to permit direct trade—to be settled quarterly in Canadian dollars—which will include the exchange of 20,000 tons of Cuban cement for coffee.

Guyana. Even though Guyana has received only about \$70 million of Communist economic aid, its political affinity with the Communist world shows no sign of decreasing. A protocol to the June 1977 Soviet agreement provided for Guyanese purchases of machinery and equipment on 10-year credit terms with 4.5-percent interest. In addition, Guyana will join the USSR in a joint fishing venture for shellfish, and Moscow will formulate a 10-year plan for Guyana's fishing industry. While Soviet aid was not made available for Guyana's long-sought billion-dollar hydroelectric power project on the Upper Mazaruni River, a Soviet team began studies of a 600,000-ton alumina plant and associated power plant. Moscow apparently has consented to take a substantial portion of the plant's output if it goes ahead with the project. Chinese projects have been plagued with problems with local contractors which have slowed the \$36 million aid program. Hungary discussed sales under its 1977 trade agreement which offers \$10 million of one-

year credits for consumer goods and five- to seven-year credits for capital goods—while Guyana tried to promote sales of rice, sugar, rum, and bauxite. Among the smaller Communist donors, Cuba promised to set up a medical facility at the University of Guyana and to provide technical assistance for the sugar industry and radiobroadcasting, while North Korea signed six protocols for assistance to agriculture and ceramic and plywood production, as well as a joint fishing venture and assistance for reestablishing Guyana's wooden shipbuilding industry.

Mexico. Mexico viewed President Lopez Portillo's visit to Moscow in May 1978 during which the Soviets signed Protocol II to the Treaty of Tlatelolco (for a nuclear free zone in Latin America) as a major foreign policy coup. Mexican commercial orientation nonetheless remains with the West and even though the Soviets pressed Mexico last year for orders of machinery and equipment (to be financed under the open-ended 1976 credit), no contracts were signed.

Europe

Malta

Malta expanded its ties with China and Eastern Europe during 1978, but relations with the USSR deteriorated because several Soviet naval vessels anchored in Maltese waters entered Grand Harbor without Maltese permission. Malta also is disappointed with Moscow's unwillingness to expand aid and commercial ties. Following Chinese Vice-Minister Keng Piao's visit, China began work on the Marsaxlokk harbor breakwater and shore facilities—one of China's largest projects under way in the Third World—being financed under a \$45 million credit. Poland also is participating in the Marsaxlokk project under a \$370,000 consultancy awarded by the United Nations. Joint ventures with Czechoslovakia got under way with the completion of plants to manufacture precision instruments and hydraulic equipment. The Czechs and Maltese also discussed a steel foundry and shoe factory.

Portugal

Portugal agreed to permit Cuba to use ship repair facilities, to be paid for with sugar.

Middle East

General

Despite Moscow's longstanding objective of maintaining a strong presence in the Middle East, the Soviets made few positive gestures in 1978 to enhance their relations with key nations in the area. Military aid commitments—the Soviets' most potent instrument for influence in the Third World—to Middle Eastern countries fell to a 13-year low of less than \$100 million and only Turkey received large new pledges of economic aid.

Arms deliveries to the area in 1978, which maintained the billion-dollar annual level of 1975-77, greatly reduced the delivery backlog in the absence of large new commitments. Shipments to both Iraq and Syria, Moscow's largest arms buyers, remained high as these countries drew on their large 1976-77 orders.

The standoff in new arms transactions did not apply to economic programs. Iraq received large-scale deliveries of equipment under its billion-dollar power and oil development contracts with the USSR. The Iraqis also signed new contracts in 1978 for Communist participation in their development program, especially for civil construction and water resource development. In Syria the 10-year Soviet construction of the 800-MW Euphrates power plant and dam was completed in 1978, and while no new projects were undertaken, the East Germans extended Syria a \$150 million credit for industrial plants.

The Shah's loss of power in December culminated a year of uncertainty for the Soviet-Iranian relationship. Moscow's economic technicians remained at Soviet-aided projects throughout the year, despite (a) a slowdown in activity as shipments piled up at the border and (b) the yearend closing of the pipeline that carries Iranian gas to the Soviet border. Plants planned under earlier agreements remained on the drawing boards and the initiation of the 1975 trilateral gasline deal was held in abeyance. Communist buyers were caught up in the turmoil in world oil markets caused by the cutoff in Iranian exports, with Romania the hardest hit. Bucharest sought alternative suppliers for its Iranian imports, which comprised one-third of its oil imports.

Egypt

As Egypt's relations with the USSR and Eastern Europe sank to an alltime low in 1978, Cairo strengthened relations with China by accepting military aid. Meanwhile, an upsurge in foreign exchange receipts from oil, worker's remittances, and Arab aid, as well as closer political cooperation with the United States, accelerated the Westward reorientation of Egypt's economic relationships.

A reduced trade and aid program is all that remains of a once flourishing Soviet-Egyptian relationship that brought in \$1.1 billion in economic aid for public sector industry as well as \$4 billion of military equipment. The \$6 billion of Arab funding (largely in cash) transferred to Egypt since the 1973 Middle East war has given Egypt flexibility in deciding its own economic destiny and has allowed it to turn increasingly toward the West.

Among the East European countries Romania has maintained the best relations with Egypt by supporting Cairo's peace initiatives. Romanian technicians completed the installation of a thermal power plant at the Hamrawein phosphate complex, and early in the year Bucharest allocated one-third of the \$90 million in credits outstanding from its 1971 agreement for electrification projects in Egypt. East Germany, which had extended \$95 million in credits in 1977, saw its trade with Egypt drop 10 percent in 1978 to \$80 million, while Egypt broke relations with Bulgaria at the end of the year over a minor matter.

At yearend the Egyptian press announced that the ban on raw cotton exports to the USSR and Czechoslovakia would continue throughout 1979; other Soviet purchases were maintained at earlier levels. In 1978, Soviet-Egyptian trade dropped \$215 million from 1977, propelled by a \$135 million drop in Soviet imports. Meanwhile, Egypt continued to save \$150 million in hard currency through its barter trade with the Soviets.

China, trying to benefit from Sadat's anti-Soviet policy, discussed aid to Egypt's textile and mining industries and agreed to build a conference center in Cairo.

Iran

Despite reductions in aid and commercial deliveries to Iran late in 1978, Moscow continued work on Iranian development contracts and tried to maintain a vigorous technical presence. The Soviets apparently hope that the 15-year Soviet-Iranian relationship will become even more vital as Tehran reassesses its development priorities and its relationships with foreign contractors.

Even though work schedules were disrupted by supply backups at the Iranian border, nearly 4,000 Soviet technicians remained at major Soviet projects which were under construction. These technicians were allowed to maintain operations at the showcase Isfahan plant.

Following several months of intermittent operation, the IGAT-I pipeline, which carries natural gas to the Soviet border, was shut down at yearend. Soviet exports rose slightly to \$635 million, while imports fell because of the gasoline closing.

Upheavals have left the Soviet presence in Iran uncertain. At the end of 1978, more than \$1 billion of commercial contracts awaited implementation and plans for additional projects were on the drawing board. These included (a) industrial plants at Isfahan and Kerman valued at about a billion dollars, which were agreed to in 1976; (b) a \$450 million power plant at Isfahan; (c) a \$250 million section of the IGAT-II pipeline; (d) a rail link to the USSR, agreed to in 1976; (e) a \$500 million aluminum plant, still under study; and (f) a tripling of capacity at the Isfahan steel mill.

Preliminary information indicates that Iran has shelved plans for a pipeline that was to be constructed under a 1975 20-year trilateral accord with the USSR for gas sales to Western Europe. Under the agreement, Moscow was to construct a section of the 1,500-kilometer (IGAT-II) pipeline, designed to pick up 475 billion cubic feet of gas annually from fields in southern Iran for transport to Astara at the Soviet border. The USSR, in turn, was to deliver 390 billion cubic feet of its own gas to Austria, West Germany, and France, for which Iran would receive hard currency. Moscow would retain 85 billion cubic feet of gas as a fee. Another 130 billion cubic feet of Iranian gas was destined for Czechoslovakia each year. While

work apparently has begun on sections of the pipeline being undertaken by third countries, we have no information on its present status or the degree of Soviet participation.

The Soviet-Iranian relationship that has evolved because of the common border has been reinforced over time by mutual economic benefits. A 1966 Soviet agreement to build a natural gas pipeline from Iran's southwestern fields to Astara on the Soviet frontier propelled Soviet-Iranian exchanges to a billion-dollar-a-year relationship by 1978 and allowed Tehran to convert a formerly wasted product (flared gas) into more than \$200 million of annual earnings. The 350-billion-cubic-foot annual flow of Iranian gas to the USSR since 1970 has been more than enough to service Tehran's \$1.4 billion economic and military aid debt to the USSR.

Cheap Iranian gas for the Transcaucasus has allowed the USSR to avoid building the long-distance pipelines that would have been required to service the area from Soviet fields. Iranian supplies also have freed equivalent amounts of Soviet gas for export to East European allies and to hard currency customers.

The USSR and Iran have profited from their trade, which developed largely as a result of the Soviet aid program. Moscow's sales of equipment had soared after 1973 as the USSR shared in the Iranian buying spree; by 1977 Iran had become the largest Third World market for Soviet goods. In addition to Soviet sales of \$575 million in that year, Moscow earned about \$50 million for technical services on Iranian projects. While the Soviet share of total Iranian trade was less than 5 percent (including Iranian oil exports) heavy machinery imports from the USSR made an important contribution to Iranian development.

As for the East European countries, the most serious impact of the turmoil in Iran was on Romania because of Bucharest's extensive commercial and technical relations with Iran and its reliance on Tehran for about one-third of its oil imports. By yearend, Romania was looking for other suppliers to furnish the crude formerly bought from Iran. Earlier in 1978, Hungary and Poland had agreed to participate with the Soviets

in building the \$400 million thermal power plant at Isfahan, and Iran had agreed to expand oil trade with Eastern Europe. Tehran had signed (a) an agreement with Romania to raise trade to \$1 billion annually by 1980 and (b) a \$215 million protocol with Hungary under which oil was to have made up 35 percent of Hungary's imports from Iran.

Iraq

Baghdad's harassment of Iraqi Communists, the rapid rapprochement between Iraq and Syria, Baghdad's suspicion of Soviet and Cuban intentions on the Arab peninsula, and Iraq's strong support of Eritrean rebels in Ethiopia, all contributed to growing strains between the USSR and Iraq during 1978. Nonetheless, the USSR continued as Iraq's main source of weapons, support equipment, and technical assistance in 1978.

Iraq, a preferred customer because of its hard currency payments, continued to receive late-model equipment before other Soviet clients. Its aircraft receipts accounted for about 60 percent of 1978 Soviet deliveries and included some of the USSR's latest models.

Soviet military advisers in Iraq increased slightly, to about 1,100, to help introduce sophisticated aircraft and air defense equipment. In addition, about 150 Cuban and 100 East European military personnel were employed as advisers and technicians. Some 100 Iraqi military personnel went to the USSR for training and 150 went to Eastern Europe—about the same number as in 1977.

While Iraq's \$11 billion of annual oil revenues allow Baghdad choices in exploiting foreign expertise, the Iraqis continue to rely on CEMA countries for certain kinds of development work—especially civil construction and for power and water resource development. In addition to geopolitical considerations the Communists eagerly pursue the relationship for oil and hard currency earnings. Almost all of Iraq's oil shipments to the USSR, either as barter or repayment for past debts, are resold for hard currency.

In 1978, Moscow concluded a \$140 million contract for a water injection program at the North Rumaylah oilfield that is designed to overcome pressurization problems that have kept the field from reaching

capacity production and agreed to build an oil desalting and dehydration plant under credits provided in 1976. Moscow's contribution to Iraq's national petroleum industry, the second most important object of Soviet aid to Iraq, was enhanced by the onset of production at the Soviet-developed Luhais field in southern Iraq (at the rate of 50,000 b/d). All of the field's output, developed under a \$22 million Soviet contract, is slated for export. The Communist interest in long-term petroleum supplies became even more important toward yearend 1978, when Iran stopped oil exports.

Nearly 6,500 Soviets and East Europeans worked on Iraqi development projects in 1978, and for the first time Iraq employed a large number of Cubans—400 doctors sent under a protocol signed at midyear. More Cubans are likely to pour into Iraq under road and housing development contracts awarded Havana in 1978, and Baghdad has requested 300 more medical personnel from Cuba.

North Yemen

Relations between North Yemen and the USSR deteriorated in 1978 because of Soviet support to South Yemen, which was promoting terrorism and subversion in North Yemen. At the same time extensive military modernization programs, financed by Saudi Arabia and supplied by the United States and France, helped orient North Yemeni procurement toward the West.

On the economic side, the USSR agreed to extend \$38 million of new credits to triple the 100,000-ton capacity of the Soviet-built cement plant at Bajil. The new accord brought Soviet aid allocations to more than \$140 million. Late in 1978, China signed an agreement to build a \$20 million conference hall in Sana, probably under new credits.

South Yemen

South Yemen's increasingly radical policies and its willingness to allow Soviet use of air and naval facilities in South Yemen have made it an appealing target for Soviet arms diplomacy. The Soviet Union remained Aden's principal source of military supplies in 1978. The USSR had reportedly agreed to build naval and air bases in Yemen, probably to support its own operations.

Reports of Communists saving the South Yemen economy from collapse following Arab sanctions may be exaggerated. Despite Aden's repeated call to Communist governments for aid to replace lost Arab assistance, only Hungary and East Germany among the East European countries extended aid—Hungary gave \$5.9 million of credits for agriculture and East Germany gave loans for consumer goods and fisheries development. Only an \$85 million commitment for Aden's second five-year plan and \$5 million of food and other commodities were forthcoming from the Soviet Union in 1978 even though Moscow had announced in 1976 that it would quadruple its aid to South Yemen in 1976-80.

Syria

Syria is not willing to break off its close arms supply relationship with the USSR despite the deterioration of Soviet-Syrian political ties in 1978.

The most important event in the Soviet-Syrian economic aid relationship in 1978 was the completion of the 10-year construction job on the 800-MW Euphrates power plant and dam—an occasion so significant that the Chairman of the Soviet State Committee for Foreign Economic Relations traveled to Syria to attend the celebrations. The half-billion dollar project, for which the USSR provided \$185 million in credits, doubled Syria's electrical output, and is expected eventually to increase the stock of arable Syrian land by 700,000 hectares.

While the USSR provided no new assistance to Syria in 1978, it signed a protocol for cooperation in the oil industry and completed a 100-kilometer section of the Damascus-Homs railroad, scheduled for full operation in 1978. The large projects Syria requested under a \$300 million 1976 agreement (a nuclear power plant, a steel mill, and large-scale irrigation) have not gone forward.

East Germany made the largest economic aid commitment to Syria in 1978, a \$150 million credit for equipment. The new aid may be used for financing two cement plants, a \$30 million power station, a textile plant, and an electric light bulb plant.

Romania's nearly \$400 million program, extended over the past decade, still makes it Syria's most active donor. Trial operation began at yearend on Romania's largest project in the Third World, the 120,000 b/d \$400 million Baniyas oil refinery, which is expected to create a surplus for export after fully covering Syria's domestic needs for gas, fuel oil, and other products. Almost half of Romanian aid has gone to this project; another quarter went to build a triple superphosphate project at Homs which is scheduled for completion in 1979.

Communist countries continue to benefit from Syria's efforts to expand its public sector industrial base, which represents 85 percent of total investment in the country. East Europeans, especially, are making a strong showing by putting together competitive bids, often combined with generous repayment conditions. Through these development contracts Communist countries have captured a large share of the Syrian market for machinery and equipment. In 1977 they supplied 20 percent of Syria's total imports and are believed to have maintained the same ratio in 1978.

Turkey

Prime Minister Ecevit's midyear visit to Moscow set the stage for a new phase in Turkey's relationship with Communist countries. These countries rallied with large offers of economic assistance to Turkey as Ankara's financial crisis deepened, and the USSR pledged \$1.2 billion of new development aid under the 10-year 1975 framework agreement. The USSR will provide assistance for expanding the Iskenderun steel mill and the aluminum plant at Seydesehir, as well as for several sorely needed power plants. Altogether, projects that would require \$4 billion in Soviet credits were under discussion by yearend.

Despite Turkish pressure on the USSR to finalize an oil-for-wheat barter to relieve energy shortages by yearend 1978, no deal had been consummated. The deal would have meant Soviet annual sales to Turkey of up to 60,000 b/d of crude beginning in 1979 (about 20 percent of Turkey's requirements) in return for

wheat and tungsten. Imbalances were to have been settled in hard currency. The oil agreement would have doubled the \$400 million annual trade level set in a three-year agreement signed in September. As a further measure for alleviating Turkey's energy crisis, Bulgaria and the USSR are selling Turkey 1,200 million kWh of electric power annually, the Soviet power flowing through a recently completed power line to the Turkish border.

East European countries provided Turkey with unprecedented commodity support in 1978:

- Bulgaria pledged \$35 million of industrial raw materials and offered to construct an irrigation dam on the Tunca River.
- East Germany promised \$50 million of long-term assistance for imports of German products.
- Romania agreed to ship \$240 million worth of goods to Turkey over the next three years, payable in one to seven years at 7-percent interest.

Bucharest also agreed to (a) speed up construction of an oil refinery in Anatolia, (b) begin work on an associated 400-kilometer pipeline, (c) build a phosphate plant, and (d) provide assistance for the exploration and production of minerals and oil. The refinery and petroleum exploration equipment are being financed by \$200 million in credits pledged in 1976, but financing for the other projects was not spelled out.

Other Middle Eastern Countries

Cyprus. Cyprus signed a protocol to import machinery and equipment from Czechoslovakia, its first transaction under a \$5 million 1976 credit agreement.

Greece. Both China and the USSR have moved to expand relations with Greece. Moscow agreed to study the possibility of (a) financing an alumina plant in Greece whose output would go to the USSR; (b) using Greek shipyards for repair and construction of Soviet vessels, (c) providing technical assistance for a nuclear power plant, and (d) selling electricity and natural gas to Greece. The USSR was awarded a contract for a 300-MW oil-fired power plant, despite Athens' reported dissatisfaction with a 200-MW Soviet unit

installed earlier. A shipment of Greek tobacco inaugurated the China trade under agreements signed early in 1978 in Beijing under which the PRC offered to barter oil for Greek products.

Jordan. Jordan increased its economic ties with Communist countries in the past year. A Czech-Jordanian long-term trade and economic cooperation agreement signed in June may lead to Prague's participation in building power plants, a cement works, and ceramics and leather factories in Jordan. Poland signed a medical cooperation agreement with Jordan late in September calling for technical assistance to Jordan and medical training for Jordanian personnel. Romania retained the largest interest in Jordan under a \$170 million contract to expand the Zarqa refinery, which has been delayed by problems with contractors. China signed its first trade agreement with Jordan.

Oman. Oman and China announced diplomatic relations at the ambassadorial level in May 1978.

Saudi Arabia. During 1978, China, Romania, and the USSR expressed interest in establishing diplomatic ties with Saudi Arabia.

South Asia

General

The Marxist coup in Afghanistan in April provided Moscow a unique opportunity to secure its influence in this major border country, the USSR's oldest aid client. By yearend, Afghanistan had signed a long-term friendship agreement with Moscow, and nearly 3,000 Soviet economic and military technicians occupied positions in every major military and economic unit where they directed the inexperienced personnel installed by the revolutionary government. Despite rumors of new Soviet aid which would reach billions of dollars, Communist countries did not pledge new economic aid to Afghanistan to replace lost Arab funding.

Other South Asian countries signed new agreements with the USSR in 1978 even though there was widespread concern over the destabilizing effect of the Afghani revolution and Moscow's role in the coup. Fearing that India's growing reconciliation with China would damage its long-range interests on the Asian continent, the USSR was particularly lenient in negotiations with India and signed a ruble/rupee agreement.

Moscow's heightened activity comes at a time when China's program is in a holding pattern. China faces the erosion of its influence in Pakistan—its largest economic and military aid client—because of Pakistan's turn to the West for sophisticated arms, to match those recently acquired by India. Most South Asian countries still view China as a valuable ally against Indian and Soviet expansionism in the area.

Afghanistan

The number of Soviet military and economic advisers in Afghanistan has doubled since the April 1978 coup which brought the leftist government of Prime Minister Nur Mohammad Taraki to power. Nearly 3,000 Soviet advisers are now engaged in economic and military duties in the country.

Moscow has disappointed Afghani expectations of large amounts of new financial support to the economy. The major Soviet economic contribution has been technical services and training. With the arrival of additional Soviet planners in 1978 to take over managerial jobs in Afghanistan's economic ministries and to survey and plan new undertakings, the number of Soviet economic personnel nearly doubled to 2,000.

Since the coup, the USSR has not added new commitments to the \$1.3 billion program extended over the past 24 years. Of this commitment, \$500 million of project aid remains to be delivered. These are hampered by Afghanistan's limited absorptive capacity and by rebel activity in areas where projects are under way. While no new commitments were forthcoming last year, the Taraki government signed 60-odd contracts that had been negotiated by the previous regime. The contracts are valued at \$200 million; at least three-fourths will be financed with existing Soviet credits, and the remainder are probably

commercial. Among the contracts signed were agreements for:

- A \$50 million rail and vehicle bridge over the Amu Darya River at Hairatan, the first direct connection between Afghanistan and the USSR.
- \$30 million worth of petroleum equipment to be provided in 1979 and 1980.
- Studies and designs for the \$600 million Ainak copper smelter and for a 300,000-ton fertilizer plant near the existing Soviet-built plant at Mazar-i-Sharif.
- A \$22 million seven-year project for mapping northern Afghanistan.
- A \$5 million renovation of the Sher Khan river port, to increase its handling capacity to 2,500 tons of cargo annually.

In November, Afghanistan announced new Soviet oil discoveries in northern Afghanistan, paving the way for Soviet construction of a 500,000-ton oil refinery, which had been planned for several years. The Soviet-developed petroleum industry eventually will provide most of Afghanistan's own needs for oil and leave a small surplus for export. The USSR now receives 3 billion cubic meters of Afghani gas annually (through a Soviet-built pipeline) which services most of Afghanistan's economic and military aid debts to the USSR. Moscow agreed to pay a third more for Afghani gas in 1978 and to make retroactive payments for two or three years at that rate.

Moscow's position as the largest aid donor to Afghanistan has made it the principal trading partner as well. In 1978, imports from the USSR (mostly machinery and equipment, oil, and food) rose by nearly 25 percent, to \$205 million, while exports to the USSR (largely natural gas and agricultural products) remained stable at \$110 million. Because of inflation the import increase was probably nearer 20 percent in real terms while the volume of exports declined.

Despite rumors of hundreds of millions of dollars of impending credits, East European countries provided no new assistance to Afghanistan in 1978. They signed only a few small contracts under \$40 million of old agreements. Chinese aid has proceeded routinely. Beijing is considering additional equipment and pharmaceuticals for the hospital it is building in Kandahar and has decided to add a cigarette factory to the list of projects it will construct under its \$45 million 1972 credit. The Chinese already are constructing a textile complex and irrigation projects under the credit.

Bangladesh

Bangladesh moved closer to China for military assistance in 1978 to counteract Soviet power in the region. The shift to China as a military supplier was precipitated by Moscow's refusal in 1976 to supply spares for the military equipment the USSR had provided the Bangladesh military by that time.

The USSR was still active in the economic field in 1978 and provided \$4 million of tools and dies for the newly completed electrical equipment plant, financed under a 1972 credit. Nonetheless, Dacca still complained about the cost of Soviet aid. A \$6.2 million hard currency purchase of US wheat in 1978 to repay a 1973 Soviet wheat loan further irritated the Bangladeshi.

China in 1978 retooled production facilities at the Tongi ordnance plant, with new machines, electrical components, and spare parts, and helped to keep operations going by supplying industrial raw materials and the services of 125 technicians. The \$60 million Chinese aid program, now going ahead under a 1977 agreement, shows typical Chinese prudence in selecting projects. China will construct a nitrogen fertilizer plant and a flood control project, for which site selection already has been made. China has further agreed to study requests for a sugar refinery, a rice bran oil mill, and coal development.

India

India's historical dependence on the USSR for air and ground forces weapons was diluted in 1978 by a record Western deal for fighter aircraft. While New Delhi has supplemented its Soviet equipment purchases with small amounts of Western equipment since the 1960s

and has manufactured British tanks under license, the recent purchases and negotiations in the West have moved into a major procurement category for the first time—an indication of India's attempt to increase its supplier base.

Revision of the ruble/rupee exchange rate in November ended a dispute that had plagued Soviet-Indian relations for several years. Moscow's unprecedented 45-year deferment of the increased payment, however, virtually eliminates the effect of the increase on annual repayments.

The economic aid relationship of more than 20 years was revitalized in March, with the upgraded Soviet-Indian joint economic commission which set targets for economic and technical cooperation over the next 10 to 15 years. The immediate focus was on development in the steel- and machine-building industries, petroleum production and processing, transport, and communications. This will include:

- A \$500-550 million 600,000-ton alumina plant, under the 1977 \$340 million credit, to be paid off in alumina. (The USSR already has agreed to take at least 300,000 tons a year.)
- A 3-million-ton blast furnace complex at Vishnkapatnam.
- An increase to 10.5 million tons in the combined steel capacity at the Soviet-built Bhilai and Bokaro steel mills.
- Oil and gas prospecting and development in West Bengal.
- Exploitation of low-grade iron ore and manganese deposits.

Soviet projects were given new life in 1978, after almost a decade of foot dragging. Stronger Soviet pressure for cooperation and agreements to develop further the heavy industrial sector were accompanied by completion of the aluminum smelter at Korba and the first stage at the Bokaro steel plant. The Korba smelter had produced 60,000 tons of aluminum by yearend. The Soviets also continued deliveries to the \$250 million Mathura refinery, which is under con-

struction, and the USSR began negotiations with New Delhi to help expand the annual Indian fish catch to 8 million tons, from the present 2.25 million tons.

India's relations with Eastern Europe were marked by new agreements that will involve ambitious plans for economic development:

- Bulgaria signed a protocol to help with major agricultural complexes at Bihar and Karnataka for growing and processing fruits, vegetables, grains, and meat. Bulgaria also agreed to form a joint fishing company with India and discussed other possibilities for cooperation such as in leather goods, electronics, chemistry, and pharmaceutical plant.
- Hungary studied joint ventures in other LDCs for which the Indian company Hindustan Machine Tools Co., will provide some of the equipment. Other ambitious projects under discussion include an alumina plant at Gujarat, a titanium plant in Kerala, and tungsten mining facilities in Rajasthan. Hungary agreed to set up additional leather and shoe factories, pharmaceutical plants, and fruit processing plants in the south of India and is considering an Indian proposal to build a coke oven in Hungary, similar to one it provided Bulgaria.
- Romania has offered a 330-MW power plant and a 1,500-tons-per-day cement plant as part of a comprehensive economic program. The program also would include assistance to India for oil and gas development, vehicle assembly, chemical and leather goods production, and development of the electronics industry.

Despite protracted efforts to identify and exploit new trade opportunities, Eastern Europe's trade with India dropped by \$65 million in 1978 to about \$450 million.

Pakistan

Despite Pakistan's anxieties over Moscow's increased role in Afghanistan and fears about shifts in regional power balances, Pakistan accepted \$225 million in new Soviet credits to cover costs in building the Karachi steel mill. China remained Pakistan's favorite donor, in spite of a declining aid program.

Pakistan has gradually shifted its reliance on China as a major arms supplier. The PRC, which for a decade since the Indo-Pak war was Islamabad's principal source of arms, has been displaced by Western suppliers who are able to provide the modern arms Pakistan needs to offset Indian acquisitions.

Contrary to advice from the international financial community, Pakistan accepted \$225 million in additional Soviet credits to complete the Karachi steel mill—for which the USSR had already provided \$430 million—including a reallocation of an earlier unused \$45 million credit. The USSR will take 270,000 tons of iron and steel annually as repayment for the new credits. Recognizing the payments strains, Moscow allowed Pakistan to defer payments for individual facilities at the mill until one year after they go into production, instead of a year after deliveries were made. Western aid donors have criticized the diversion of scarce resources to the steel plant, while Islamabad requests budgetary support and debt rescheduling.

Among East European countries, Poland offered to supply 16 ships beginning in 1980. Romania opened the \$60 million Karachi oil refinery built with \$16 million of Romanian credits. Bucharest agreed to proceed with a cement plant, for which financing was announced last year, and to study construction of a heavy electrical equipment complex.

Other South Asian Countries

Nepal. Nepal attaches great importance to its ties with China—a \$185 million grant aid donor. In 1978, China agreed to study construction of a sugar mill and pulp paper plant that could cost up to \$40 million. China also completed the Hitaura textile mill under a 1972 agreement and speeded construction of the 60-km Gurka-Narayanghat road. Nepal also will receive its long-awaited rosin and turpentine plant from the USSR under a \$4.3 million contract signed in mid-1978. Even though the Nepalese were disappointed with the terms, they are easy by Soviet standards—12-year repayment after three years' grace at 2.5-percent interest.

Sri Lanka. Sri Lanka received \$120 million in new aid from China and the USSR for water resource development and a \$20 million grant from East Germany for 25 rice mills and 500 railway cars. The Chinese and Soviet offers for assistance to Colombo's billion dollar Mahaweli River development scheme in eastern Ceylon—the center piece of Colombo's agricultural development scheme in which several Western governments also are expected to participate—includes China's \$60 million offer for roads, housing, schools, and public buildings. The Soviet commitment—also in the \$60 million range—is for two irrigation projects, which apparently are in addition to the Samanalawewa project being implemented under a \$57 million 1975 credit. In addition the USSR will provide five ships to the Ceylon Shipping Corporation under a \$45 million contract.