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Energy Resources In Southern Africa: A Select Bibliography

Ann Cavan





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**Energy Resources
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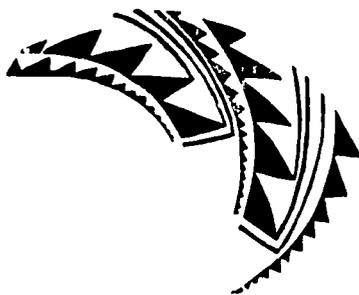
Ann Cavan

— CONTENTS —

INTRODUCTION.....	1
GENERAL & REFERENCE.....	5
General	5
Alcohol	10
Coal	10
Oil & Gas	11
Solar	13
Uranium	13
Water	14
Wood	14
AFRICA.....	16
General	16
Alcohol	19
Coal	19
Oil & Gas	20
Solar	23
Uranium	24
Wood	26
SOUTHERN AFRICA.....	28
Region.....	28
General	28
Alcohol	31
Coal	31
Oil & Gas	33
Uranium	35
Water	36
Wind	36

Angola.....	36
General	36
Oil & Gas	37
Botswana.....	38
General	38
Coal	39
Solar	40
Wood	40
Lesotho.....	40
General	40
Uranium	41
Water	41
Wind	41
Malawi.....	41
General	41
Alcohol	41
Mozambique.....	42
General	42
Coal	42
Water	42
Wood	43
Namibia.....	44
General	44
Coal	44
Oil & Gas	45
Uranium	45
Swaziland.....	47
General	47
Coal	47
Water	47

Tanzania.....	43
General	48
Coal	49
Solar	49
Water	49
Wind	51
Wood	51
Zambia.....	51
General	51
Alcohol	52
Coal	52
Oil & Gas	53
Uranium	53
Water	53
Wood	54
Zimbabwe.....	54
General	54
Alcohol	57
Coal	57
Oil & Gas	58
Solar	59
Water	59
Wood	59
AUTHOR INDEX.....	61



— INTRODUCTION —

The high cost of imported oil is forcing developing countries to look increasingly to domestic energy resources for relief. The United Nations Conference on New and Renewable Sources of Energy, meeting in Nairobi, Kenya, in August 1981, addressed the need to diversify energy resources worldwide, with particular reference to developing countries. In Southern Africa, a variety of energy sources are being tapped to meet this need. The many rivers and lakes in the region provide the opportunity for hydro-electric power generation; geological teams explore for coal, gas, oil, and uranium; and forestry experts examine the use of firewood and the resulting impact on the environment. Innovative sources of energy -- ethanol from sugar; solar and wind power -- are presently being studied, tested, and implemented throughout the region. In fact, the first meeting of the Southern African Development Coordination Conference (SADCC), in Arusha, Tanzania, in July 1979, declared energy to be among the priority sectors for regional cooperation. At the April 1, 1980 Lusaka SADCC summit meeting, Angola was charged with the responsibility of preparing "proposals for the formulation of a programme for the harmonisation of energy policies in the region." Since that time, Angola has sponsored an international seminar on oil and development (May 1981), and a meeting of energy experts from SADCC member countries (August 1981).

It is within this context that the Southern Africa Development Information/

Documentation Exchange (SADEX) project, funded by the U.S. Agency for International Development, has produced this bibliography of energy resources in Southern Africa to serve as a guide to current literature for researchers, field workers, and development administrators alike.

The bibliography is compiled from the resources of the African Bibliographic Center and from selected data bases in the Washington, D.C. area. Entries, from 1975 to mid-1981, are intended to be illustrative of the diversity of available sources, rather than comprehensive in scope. Annotations are provided where possible, but do not reflect editorial preference or availability of sources from the collection of the African Bibliographic Center.

Entries are primarily divided among geographical headings as follows: General, covering worldwide or Third World entries; Africa, continent-wide; and Southern Africa, including separate sub-headings for the region and for individual countries -- Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia, and Zimbabwe. Entries covering South Africa are listed under the Southern Africa region sub-heading. Within these geographical categories, entries are further listed according to energy source -- alcohol, coal, oil & gas, solar, uranium, water, wind, and wood. Entries relevant to two categories are listed under both; while general surveys and entries covering more than two categories are listed under general sub-headings.

The reader may wish to note three periodicals that include excellent coverage of this subject. The Sub-Saharan Africa Report, produced by the Joint

Publications Service of the National Technical Information Service (JPRS/NTIS), in Springfield, Virginia, contains a compilation of articles and reports from foreign print and broadcast media, and offers extensive coverage of local media reports within the region. Africa Economic Digest, a London-based bi-weekly magazine, covers business developments throughout Africa, including detailed regional and country-level reports. Finally, African Business, a London-based monthly, contains frequent coverage of energy efforts in Africa as a whole.

Other easy to obtain sources that offer occasional coverage of this topic are as follows: All Africa Press Service Bulletin (P.O. Box 14205, Nairobi, Kenya); Development and Cooperation (German Foundation for International Development, DSE, Postfach 120518, D-5300 Bonn 1, Federal Republic of Germany); Development Forum (DESI, C-527, United Nations, 1211 Geneva, Switzerland); and Finance and Development (International Monetary Fund Building, Washington, D.C. 20431 U.S.A.).

* * *

I would like to thank Constance Burr, Carolyn Goshen, Gail Kostinko, and Camille Kurtz, all of the African Bibliographic Center, for their assistance in the preparation of this manuscript. The African Bibliographic Center will continue to collect information covering energy resources in Africa continent-wide, as well as in the Southern Africa region. This information will be cited in the various publications of the Center, including the quarterly journal, A Current Bibliography on African Affairs, and SADEX, the bi-monthly journal of

the Southern Africa Development Information/Documentation Exchange project.
Readers are encouraged to forward relevant reports, articles, and documents to
the African Bibliographic Center, 1346 Connecticut Avenue N.W., Suite 901,
Washington, D.C. 20036 U.S.A.

Washington, D.C.

August 1981

— GENERAL & REFERENCE —

General

ALNASRAWI, A. Energy and the Developing Countries. Vienna, OPEC Special Fund, 1979. 23 pp. (001)

ASHWORTH, J.H. Renewable Energy Sources for the World's Poor: A Review of Current International Development Assistance Programs. Golden, Colorado, Solar Energy Research Institute, October 1979. 81 pp. Available from the National Technical Information Service (NTIS), Springfield, Virginia. Examines "foreign-assistance funding of the creation, testing and use of renewable energy sources" for Third World development. "Donor agencies and industrially developed nations give serious attention to technologies that have been considered exotic and marginal: small-scale hydroelectric generation, solar water heating and distillation, biomass conversion to methane gas and alcohol, wind power, photovoltaic-powered small-scale irrigation, and village-level solar-powered absorption refrigeration. An initial effort to assist in the international coordination of donor activity and in the sharing of information generated by foreign-assistance projects that use renewable energy sources is reported." (002)

Asset. United Nations University, Tokyo, Vol. 2, no. 9, October 1980-. Frequency: monthly; subscription rate: ? Serves as "an information dissemination service in the areas of solar, bioconversion and wind energy technology applicable to developing countries." Full title: Abstracts of Selected Solar Technology. Designated official newsletter of the U.N. Conference on New and Renewable Sources of Energy. Publisher's address: Toho Seimei Building, 15-1 Shibuya 2-chome, Shibuya-ku, Tokyo 150, Japan. (003)

BACH, WILFRED and others, eds. Renewable Energy Prospects. Elmsford, New York, Pergamon Press, 1980. 1 vol., illus. Proceedings of a conference on Non-Fossil Fuel and Non-Nuclear Fuel Energy Strategies held in Honolulu, Hawaii, January 9-12, 1979; co-sponsored by the East-West Center at Honolulu; the International Institute for Applied Systems Analysis at Laxenburg, Austria; the State of Hawaii; and the University of Hawaii. Discusses the world's energy needs beyond the year 2000; and reviews the potential of alternative energy sources to meet those needs. (004)

CLEVELAND, HARLAN, ed. Energy Futures of Developing Countries: The Neglected Victims of the Energy Crisis. New York, Praeger, 1980. 96 pp. Praeger Special Studies series. Contains papers presented at an Aspen Institute-sponsored workshop on Energy Futures of Developing Countries, Cairo, Egypt, January 26-30, 1979. (005)

COMMISSION OF THE EUROPEAN COMMUNITIES. Instruments of Mining and Energy

Cooperation with the ACP Countries. Strasbourg, France, March 14, 1979. 1 vol. (006)

COMMISSION OF THE EUROPEAN COMMUNITIES. Report from the Commission to the Council Concerning Cooperation with Developing Countries in the Field of Energy. Brussels, Belgium, April 23, 1979. 1 vol. Document 74/79. (007)

CRABBE, DAVID & RICHARD MC BRIDE. The World Energy Book: An A-Z, Atlas and Statistical Source Book. Cambridge, Massachusetts, MIT Press, 1979. 259 pp. Provides a dictionary of energy terminology, energy resources atlas, and statistical section on energy production and consumption. (008)

"Energy." In: Third World Quarterly, London, October 1979, pp. 39-88. Special issue. Partial contents: "Global Energy Transition and the Third World," by Ali Ahmed Attiga.-"Development and Energy Costs: A Third World Perspective," by Richard Bailey.-"The Energy Crisis and the Third World," by D.R. Pendse. (009)

"Energy in the 80s: Can the Third World Afford It?" In: Agenda, Washington, D.C., November 1979, pp. 1-25. Entire issue. Partial contents: "What Is AID Doing About Energy?" by Stephen Klein.-"Winning with Oil...and Losing," by John Maxwell Hamilton & Norman L. Brown.-"Kicking the Oil Habit, Third World Style," by Elizabeth Sullivan.-"Upper Volta Harnesses the Sun."-"There's More Than Food Down on the Farm," by Bob Stanley.-"Science and Technology in Development," by William Eilers.-"Facing the Harsh Reality," by Cyrus R. Vance.-"What Are Our Energy Options?" by Ruth Leger Sivard. (010)

EXXON CORPORATION. DEPARTMENT OF CORPORATE PLANNING & DEPARTMENT OF PUBLIC AFFAIRS. World Energy Outlook. n.l., 1980. 40 pp., illus. Exxon Background series. "Projects energy supply and demand through the year 2000"; covering electric power, nuclear energy, coal, gas, oil, and synthetic fuels. Includes a section on "Developing Countries Energy Outlook." (011)

FALLEN-BAILEY, DARREL G. & TREVOR A. BYER. Energy Options and Policy Issues in Developing Countries. Washington, D.C., World Bank, August 1979. 107 pp. Staff Working Paper, no. 350. Background study for World Development Report, 1979. "Reviews the energy resources of developing countries, with particular emphasis on those which import oil. Discusses the nature of these resources, the cost of developing them, and the policy issues raised in doing so. Also reviews issues related to power generation and fuel substitution and their costs." (012)

GOODMAN, RAYMOND. "Managing the Demand for Energy in the Developing World." In: Finance & Development, Washington, D.C., Vol. 17, no. 4, December 1980, pp. 9-13, illus. Discusses the potential for energy conservation in oil-importing developing countries, and reviews World Bank efforts in support of energy development. (013)

HOFFMAN, THOMAS & BRIAN JOHNSON. "Bypassing Oil and the Atom: The Politics of Aid and World Energy." In: Energy Policy, Guildford, England, June 1979, pp.

90-101. Argues that "any new energy aid efforts must resolve a conflict between the desire to provide exports and the need to devise cheap and easily maintained energy sources for rural areas of the Third World; (suggests) that multilateral aid agencies, which are more remote from the direct pressure of international industrial competition than most aid programs, should be encouraged to take the lead in expanding their 'renewables' program." (014)

HOFFMANN, THOMAS & BRIAN JOHNSON. The World Energy Triangle: A Strategy for Cooperation. Cambridge, Massachusetts, Ballinger Publishing Co., 1981. 219 pp., illus., bibl. Examines the "energy plight of the Third World developing countries" and the "potential benefits of energy cooperation among industrialized nations, OPEC, and developing countries." (015)

HOWE, JAMES and others. An Alternative Road to the Post-Petroleum Era: North-South Cooperation on Energy for Development. Washington, D.C., Overseas Development Council, 1980. 74 pp. (016)

HUGHART, DAVID P. Prospects for Traditional and Non-Conventional Energy Sources in Developing Countries. Washington, D.C., World Bank, 1979. 132 pp. Staff Working Paper, no. 346. Background study for World Development Report, 1979. "Surveys nonconventional energy technologies and suggests that many developing countries could usefully consider programs to increase firewood and charcoal production, improve the efficiency of cooking stoves, exploit wind and small hydro resources, and make greater use of combustible residuals from agro-industrial and forest-industrial plants." (017)

LAMBERTINI, ADRIAN. "World Energy Prospects and the Developing World." In: Finance & Development, Washington, D.C., December 1979, pp. 18-22, illus. Surveys the energy prospects of four groups of countries: industrialized; oil exporting; oil importing developing; and those with centrally planned economies. (018)

MAC KILLOP, ANDREW. "Economic Considerations for Solar and Renewable Energy in Developing Countries." In: Natural Resources Forum, Dordrecht, The Netherlands, April 1980, pp. 165-79. (019)

MADISON, CHRISTOPHER. "Energy Loans from the World Bank: A Controversy that Won't Go Away." In: National Journal, Washington, D.C., March 28, 1981, pp. 528-32, illus. "Despite the Reagan Administration's withdrawal of support for a World Bank affiliate to encourage energy development in the Third World, the debate goes on." (020)

MARTIN, JEAN-MARIE. Energy: Re-evaluation of Needs and Re-orientation of Technology. n.l., 1979. 1 vol. Paper prepared for the Symposium on Science and Technology in Development Planning, Mexico City, May 28-June 1, 1979. (021)

MILLER, DAPHNE. Energy: New Sources and New Accords. New York, U.N. Development Programme, 1980. 14 pp., illus., bibl. Development Issue Paper for the 1980s series, no. 10. (022)

- MILNER, MORRIS. "Energy Conference Aimed at Overcoming Inertia Impeding Transition to New Sources." In: U.N. Chronicle, New York, December 1980, pp. 23-26. Reports on the U.N. Conference on New and Renewable Sources of Energy scheduled for August 1981. (023)
- Our Magnificent Earth: A Rand McNally Atlas of Earth Resources. New York, Rand McNally & Co., 1979. 208 pp., illus., maps, bibl. Surveys global resource reserves and development. Covers political and economic considerations, and includes sections on energy, food, and minerals. Also includes a foreword by World Bank President Robert McNamara. (024)
- PALMEDO, P.F. & P. BALDWIN. The Contribution of Renewable Resources and Energy Conservation as Alternatives to Imported Oil in Developing Countries. Washington, D.C., Agency for International Development, 1980. 187 pp. Publication no. PN-AAH-389. "Addresses the role of renewable energy sources and conservation in meeting the future energy demands of developing countries." Concludes "that the non-technical constraints to renewable and energy conservation strategies are the most formidable, (and recommends) that the U.S. and other industrialized nations step up their technical, economic, and institutional assistance in the development of these energy sources." (025)
- SIVARD, RUTH LEGER. World Energy Survey. New Brunswick, New Jersey, Rockefeller Foundation, 1979. 36 pp., illus., maps, bibl. Summarizes information on the world energy situation with concise analysis and statistical tables. (026)
- SMIL, VACLAV & WILLIAM E. KNOWLAND, eds. Energy in the Developing World: The Real Energy Crisis. Oxford, England, Oxford University Press, 1980. 386 pp., illus., maps, bibl. (027)
- STOUT, B.A. Energy for World Agriculture. Rome, Food and Agriculture Organization of the U.N., 1979. 286 pp., illus., bibl. FAO Agriculture series, no. 7. Contents: "World Energy Resources."-"Energy Flow in Agriculture."-"Energy Conservation."-"Alternative Strategies." Available from UNIPUB, 345 Park Avenue South, New York, New York 10010. (028)
- TANZER, MICHAEL. The Race for Resources: Continuing Struggles Over Minerals and Fuels. New York, Monthly Review Press, 1980. 285 pp. Analyses international competition for fuels and non-fuel minerals "within the historical context of the international capitalist system." Coverage includes Southern African countries -- Namibia, Zambia, and South Africa. (029)
- TINKER, IRENE. Women and Energy: Program Implications. Washington, D.C., Agency for International Development, Office of Women in Development, April 1980. 12 pp. Surveys a range of energy technologies for use in rural areas, and comments on the impact of these technologies on rural women. (030)
- U.N. INDUSTRIAL DEVELOPMENT ORGANIZATION. Appropriate Industrial Technology for Energy for Rural Requirements. New York, 1979. 169 pp. Monographs on

- Appropriate Industrial Technology, no. 5. (031)
- U.N. SECRETARY-GENERAL. Some Energy Problems and Issues in Developing Countries: Report. New York, 1979. 33 pp. U.N. Document no. E/C.7/109. "Deals with energy problems in developing countries, particularly with regard to new initiatives by the international community in providing assistance for accelerated exploration and development of indigenous resources." (032)
- U.S. GENERAL ACCOUNTING OFFICE. U.S. Energy Assistance to Developing Countries: Clarification and Coordination Needed. Washington, D.C., 1980. 62 pp. Publication no. ID-80-7, March 28, 1980. Report to the Congress by the Comptroller General of the United States. (033)
- U.S. HOUSE OF REPRESENTATIVES. COMMITTEE ON FOREIGN AFFAIRS. SUBCOMMITTEE ON INTERNATIONAL ECONOMIC POLICY AND TRADE. International Energy Development Assistance Programs. Washington, D.C., U.S. Government Printing Office, 1981. 120 pp. No. 169. Proceedings from a joint hearing before the Subcommittees on International Economic Policy and Trade and on Inter-American Affairs of the Committee on Foreign Affairs; and the Subcommittee on Energy Development and Applications of the Committee on Science and Technology; 96th Congress, 2nd session, March 5, 1980. (034)
- WARD, BARBARA. Progress for a Small Planet. New York, Norton & Company, 1979. 305 pp., illus. Discusses the future for North/South relations. Contents include: "Energy: How Big Is the Gap?"-"The Nuclear Option."-"Energy Alternatives."- "Saving Fuel."-"Fuel for Food."-"Fuel for Basic Needs." (035)
- WORKSHOP ON ENERGY DATA OF DEVELOPING COUNTRIES, PARIS, 1978. Basic Energy Statistics and Energy Balances of Developing Countries. Paris, Organisation for Economic Cooperation and Development, 1979. 544 pp. Vol. 2 of 2. "Includes data for Algeria, Argentina, Brazil, Colombia, Egypt, India, Indonesia, Iran, Jamaica, Kenya, Republic of Korea, Mexico, Nigeria, Saudi Arabia, Thailand, and Venezuela." (036)
- WORKSHOP ON ENERGY DATA OF DEVELOPING COUNTRIES, PARIS, 1978. Proceedings: Volume 1: Summary of Discussions and Technical Papers. Paris, Organisation for Economic Cooperation and Development, 1979. 128 pp. Vol. 1 of 2. Conference papers. Discuss "the definition, collection, analysis and presentation of national and international energy statistics; the integration of fuel supply and sector end-use data into internally and internationally consistent energy balances; national and international approaches to energy forecasting and modelling techniques; and future cooperation in the field of energy statistics." (037)
- WORLD BANK. Energy in the Developing Countries. Washington, D.C., August 1980. 92 pp., illus. Examines energy demand and production in developing countries, as well as World Bank lending for energy programs. (038)
- "World Bank Energy Programme." In: Natural Resources & Energy, New York, Vol. 5, no. 1, January 1981, pp. 1-3. (039)

Alcohol

BEDELL, BERKLEY. "Doomsaying on Synthetic Fuels Will Get Us Nowhere." In: Agenda, Washington, D.C., Vol. 3, no. 10, December 1980, pp. 14-17, illus. Disputes Lester Brown's article in Agenda (June 1980), which warned that the development of gasahol from grain will spark competition between foreign aid programs and domestic fuel consumption. Charges that gasahol production affects feed grains, and not food grains. (040)

BROWN, LESTER. "Food or Fuel: The Bittersweet Choice." In: Agenda, Washington, D.C., Vol. 3, no. 5, June 1980, pp. 12-13, illus. Foresees further tension in international food supply as "the stage is set for competition between auto owners and the hungry poor." (041)

BROWN, LESTER. "Putting the Food-Fuel Issue into Perspective." In: Agenda, Washington, D.C., Vol. 3, no. 10, December 1980, pp. 14-17, illus. Defends the argument that alcohol-from-grain development competes directly with food grain grown for export. (042)

BROWN, LESTER & PAUL GIBSON. "Gasahol and World Hunger." In: Baltimore Sun, Baltimore, Maryland, September 23, 1980. Debates management strategies for crops that can be used as food for the world's poor or as the base for an alcohol fuel industry. (043)

KOHLI, HARINDER S. "Renewable Energy: Alcohol from Biomass." In: Finance & Development, Washington, D.C., Vol. 17, no. 4, December 1980, pp. 18-22, illus. Outlines the economics of producing ethanol from raw materials such as sugar-cane, molasses, corn, and cassava; and discusses the implications of its use as an energy source, especially in developing countries. (044)

"Relying on Alcohol." In: West Africa, London, December 22-29, 1980, pp. 2619-21. Discusses the potential of alcohol in industry and agriculture, and includes an economic assessment. (045)

WHITTAKER, DONALD. "Energy for the 1990s: Will Wood Work?" In: Development Forum Business Edition, Geneva, no. 76, April 17, 1981, p. 3. Explores the potential use of wood for the production of ethyl alcohol. (046)

WORLD BANK. Alcohol Production from Biomass in the Developing Countries. Washington, D.C., September 1980. 1 vol. (047)

Coal

FETTWEIS, GUNTER BERNHARD. World Coal Resources: Methods of Assessment and Resources. Amsterdam, Elsevier Scientific Publications, 1979. 415 pp., illus. (048)

GREENE, ROBERT P. & J. MICHAEL GALLAGHER, eds. Future Coal Prospects.

Cambridge, Massachusetts, Ballinger Publishing Co., 1980. 1 vol. World Coal Study report. Vol. 2 of 2. Volume 1 -- Coal: Bridge to the Future. (049)

WORLD BANK. Coal Development Potential and Prospects in the Developing Countries. Washington, D.C., October 1979. 41 pp. "Summarizes the essential data on coal reserves,...recent patterns of coal production, and consumption and trade....Discusses the major constraints in developing countries to a rapid increase in their coal production, which depends to a large extent on policy decisions and more research by developed countries on technologies for coal exploration, mining, processing, handling, and transportation." (050)

Oil & Gas

BAUM, VLADIMIR, ed. State Petroleum Enterprises in Developing Countries. New York, Pergamon Press, 1980. 211 pp. Pergamon Policy Studies on U.S. and International Business series. Contains papers presented at the U.N. Symposium on State Petroleum Enterprises in Developing Countries, Vienna, 1978. (051)

BOSSE, PETER. "Scapegoat OPEC." In: Development and Cooperation, Bonn, no. 5, September/October 1980, pp. 6-7, illus. Defends OPEC countries from the widely held view that oil price hikes are responsible for the desperate economic conditions in oil-importing developing countries. (052)

CROLL, DONALD O. "1980 Oil Production: Growth by Non-OPEC Producers." In: Petroleum Economist, London, Vol. 48, no. 5, January 1981, pp. 5-7. (053)

"Developing Countries and the Oil-Price Shock." In: OECD Observer, Paris, no. 109, March 1981, pp. 12-15, illus. Examines the effects of oil price rises between 1973 and 1978 on the economies of developing countries, particularly Brazil, Colombia, Ivory Coast, Korea, Malaysia, Mexico, Peru, Tunisia, and Portugal. (054)

FALLEN-BAILEY, DARNEL G. & TREVOR A. BYER. Energy Options and Policy Issues in Developing Countries. Washington, D.C., World Bank, August 1979. 107 pp. Staff Working Paper, no. 350. Background study for World Development Report, 1979. "Reviews the energy resources of developing countries, with particular emphasis on those which import oil. Discusses the nature of these resources, the cost of developing them, and the policy issues raised in doing so. Also reviews issues related to power generation and fuel substitution and their costs." (055)

FRIEDMANN, EFRAIN & RAYMOND GOODMAN. "Prospects for Oil and Gas Production in the Developing World." In: Finance & Development, Washington, D.C., June 1979, pp. 7-10. "Assesses the financial and technical needs of the developing countries in this field and reports on a five-year World Bank program that will assist them in the development of their petroleum resources." (056)

GROSSLING, BERNARDO F. "Petroleum Exploration in Developing Countries and

Considerations About Its Financing." In: Natural Resources Forum, Dordrecht, The Netherlands, Vol. 3, April 1979, pp. 299-307. (057)

HOFFMANN, THOMAS & BRIAN JOHNSON. The World Energy Triangle: A Strategy for Cooperation. Cambridge, Massachusetts, Ballinger Publishing Co., 1981. 219 pp., illus., bibl. Examines the "energy plight of the Third World developing countries" and the "potential benefits of energy cooperation among industrialized nations, OPEC, and developing countries." (058)

LAMBERTINI, ADRIAN. "World Energy Prospects and the Developing World." In: Finance & Development, Washington, D.C., December 1979, pp. 18-22, illus. Surveys the energy prospects of four groups of countries: industrialized; oil exporting; oil importing developing; and those with centrally planned economies. (059)

MOLL, ULRIKE. "Oil Prices and Development." In: Development and Cooperation, Bonn, no. 6, November/December 1980, pp. 8-9, illus. Interview with Dr. Ibrahim F.I. Shihata, Director General of the OPEC Special Fund. (060)

ONIS, JUAN DE. "Developing Nations Receive Help to Increase Fuel Supplies." In: New York Times, New York, October 2, 1980. Examines World Bank lending for energy programs in oil-importing countries. (061)

R. WEN, HOBART. "Less-Developed Countries Adjusting to Energy Crisis." In: Washington Post, Washington, D.C., January 11, 1981, p. L1. Examines the financial adaptation of LDCs to oil price increases. (062)

TURNER, LOUIS. "Oil Prices: The Real Impact on the Third World." In: South, London, October 1980, pp. 11-13. Reports on "how OPEC's struggle to gain a fair price for oil has affected the poorer nations." (063)

U.S. CENTRAL INTELLIGENCE AGENCY. NATIONAL FOREIGN ASSESSMENT CENTER. Some Perspectives on Oil Availability for the Non-OPEC LDCs. Springfield, Virginia, National Technical Information Service (NTIS), 1980. 48 pp. (064)

WORLD BANK. A Program to Accelerate Petroleum Production in the Developing Countries. Washington, D.C., January 1979. 32 pp., map. Also available in French and Spanish. "Gives projections of the 'energy balance' of the non-OPEC developing countries in 1980 and 1985, reviews the World Bank's lending and technical assistance activities for oil, natural gas, coal, and electric power during the past 15 months, and examines the exploratory and other pre-development work that needs to be done before investment can be made in petroleum and coal production. Shows how far this falls short of the need of the oil-importing developing countries, suggests ways in which the bank might help these countries to extend their knowledge of petroleum and coal reserves, and outlines an expanded program of lending and technical assistance by the World Bank in the energy fuel sector." (065)

"Worldwide Issue." In: Oil & Gas Journal, Tulsa, Oklahoma, December 29, 1980,

pp. 75-162. Includes country-by-country surveys of the world's producing oil fields and refineries, as well as reserves of both gas and oil. (066)

Solar

EGGERS-LJURA, A. Solar Energy in Developing Countries: An Overview and Buyers' Guide for Solar Scientists and Engineers. New York, Pergamon Press, 1979. 205 pp., illus., bibl. (067)

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— SOUTHERN AFRICA —

Region

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- "How Anglo-American Manipulates Africa's Mineral Wealth." In: New African, London, April 1981, pp. 61-62, illus. Examines South African-based Anglo-American Corporation's control of gold, diamond, and uranium mining; and emphasizes the impact on neighboring Southern African countries. (209)
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"The South African Connection: Utility Ties to Apartheid Eyed by Anti-Synfuels Organizers." In: Power Line, Washington, D.C., December 1980/January 1981, pp. 9-11. Outlines contacts that have developed between several gas utilities, the Environmental Protection Agency, the Crow tribe of American Indians, and members of the U.S. House and Senate with the South African Coal, Oil, and Gas Corporation (SASOL) in order to get at SASOL's state-controlled synfuels technology. (249)

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Oil & Gas

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LIFF, DAVID M. The Oil Industry in South Africa. Washington, D.C., Investor

Responsibility Research Center, 1979. 37 pp. (256)

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"Oil Sanctions Against South Africa to Hurt Zambia." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2394, April 14, 1981, p. 10. Text origin: Times of Zambia, Lusaka, March 23, 1981, p. 1. (262)

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WEBSTER, MARK. "Target Date for Beira Oil Pipeline." In: Financial Times, London, June 8, 1981. Reports on the progress of the Zimbabwe-Mozambique oil

pipeline, which is now slated to reopen in December 1981. (265)

Uranium

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MEYEROWITZ, ANDRE. "U.S. Hints at Compromise on Nuclear Deadlock." In: The Star, Johannesburg, June 6, 1981. Examines the implications of U.S. extension of the deadline for an enriched uranium deal with South Africa. (269)

MURRAY, ROGER. "The Scramble for Africa's Uranium." In: African Business, London, September 1978, pp. 13-14, illus. Examines the growing importance of Africa, and especially Southern Africa, as a major uranium supplier in the wake of new deposits which were discovered in Namibia, and "which will increase considerably the economic and strategic importance of Namibia..." Also reports the discovery of low-to-medium grade uranium deposits in the Zambesi Valley. (270)

"Pretoria Requests Washington to Supply Uranium." In: The Times, London, June 9, 1981. Examines the news leak alleging that South Africa has requested that the U.S. resume supplying enriched uranium for its nuclear power station near Cape Town. (271)

"Technology for Progress." In: Backgrounder, Washington, D.C., no. 3/80, February 1980, pp. 1-6. Covers South African technological exploits in the areas of mining research, industrial development, nuclear energy, agriculture and veterinary research, health and medicine, and research and inventions. (272)

"Uranium: l'Angola ne répond pas." In: Jeune Afrique, Paris, 26 décembre 1979, p. 40. In response to a query by Jeune Afrique regarding UTA's uranium flights over Angolan territory to Namibia in violation of U.N. sanctions, the government of Angola acknowledged the flights but offered no justification. (273)

WALTERS, RONALD W. "Uranium Politics and U.S. Foreign Policy in Southern Africa." In: Journal of Southern African Affairs, College Park, Maryland, July 1979, pp. 281-300. Attempts to assess the extent to which uranium will become a possible determinant of future U.S.-South African relations and of U.S. policy in Southern Africa. (274)

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"Drilling Started." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2321, November 19, 1980, pp. 173-74. Text origin: Sunday Mail, Salisbury, November 2, 1980, p. 7. Reports on the Central African Power Corporation's (CAPCO) program of hydro-electric feasibility exploration along the Zambesi River. (275)

GAUNT, JOHN. "Turning One Drop of Water into Three." In: Optima, Johannesburg, January 31, 1980, pp. 233-46, illus., map. Describes the Drakensberg Pumped Water Storage Scheme, "a conservation scheme that transfers water over the Drakensberg to the Vaal for South Africa's industrial heartland and will harness the Tugela for hydro-power." (276)

MURRAY, ROGER. "Cunene Scheme: A Focus for Confrontation." In: African Development, London, November 1975, pp. 31-33, map. Examines the Cunene hydro-electric scheme on the Namibia-Angola border, and discusses tensions growing out of Angolan crisis and unrest in Ovamboland. (277)

POWER, GWYNNE. "Water Survey: Engineering for Peace?" In: African Business, London, April 1980, pp. 46-47. A brief look at Southern Africa, "where the political atmosphere is as highly charged as many of the big hydro-power schemes." (278)

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SCHMIDT, W.L. Wind Power Studies in Eastern Africa and Botswana. Waterloo, Ontario, University of Waterloo, 1978. 2 vols. Studies "the viability of wind power as a means of pumping water in Eastern Africa and Botswana....Discusses the activities of several research groups, and evaluates projects in terms of feasibility and implementation." (279)

Angola

General

"Angola: Potentially Wealthy Economy Waiting to Be Explored." In: Africa Economic Digest, London, February 6, 1981, p. 25. Briefly outlines investment

possibilities in five areas of the Angolan economy, as follows: agriculture; petroleum; transport and communications; import substitution industries; and chemicals and pharmaceuticals. (280)

Oil & Gas

"Angola (2): The Potential Oil Boom." In: Foreign Report, London, February 14, 1979, pp. 7-8. Surveys current and future oil prospects and possibilities for the involvement of Western oil companies. (281)

BALL, JAMES. "Steady Expansion for Angolan Oil." In: African Business, London, September 1980, p. 16. Describes how the Angolan government's comprehensive petroleum policy has brought about "stable expansion of production, exploration, and Angolan involvement." (282)

"Cabinda Electricity Supply Ensured by New Turbine." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2352, January 30, 1981, p. 15. Translated from Portuguese. Text origin: Jornal de Angola, Luanda, November 16, 1980, p. 1. Reports the inauguration of a gas-powered turbine in Cabinda. (283)

"Cabinda Oil and Angola's Future." In: Petroleum Economist, London, no. 42, October 1975, pp. 383-85. (284)

"Gulf Oil Asks for Sensible U.S. Policies." In: African Business, London, June 1981, p. 28. Reports on Gulf Oil Company lobbying efforts in Washington to safeguard their relationship with the Angolan government and with other African governments. (285)

HILL, MELVIN J. Prepared Statement of Melvin J. Hill, President, Gulf Oil Exploration and Production Company Before the Subcommittee on Africa, Committee on Foreign Affairs, U.S. House of Representatives, Washington, D.C. Washington, D.C., House Subcommittee on Africa, September 17, 1980. 11 pp., map. Statement by Gulf official on Gulf's operations in Cabinda, noting commercial benefits to be gained by U.S. recognition of Angola and the establishment of a U.S. embassy in Luanda. (286)

"Oil Exploration Contracts Signed with U.S. Companies." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2380, March 24, 1981, p. 17. Text origin: Rand Daily Mail, Johannesburg, February 25, 1981, p. 7. Reports on planned oil exploration agreements between Angola and (predominantly U.S.) foreign companies. (287)

PEARSON, RUTH. "Angola Seeks Investment, Recognition from the U.S." In: Journal of Commerce, New York, October 3, 1980. Based on an interview with Angolan Foreign Minister Paulo Jorge. Also cites Gulf Oil Company official on how improved economic relations between the U.S. and Angola would result from normalizing diplomatic relations. (288)

"Petrangol Achieves Record Production." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2374, March 12, 1981, pp. 17-18, illus. Translated from Portuguese. Text origin: Jornal de Angola, Luanda, January 8, 1981, p. 2. (289)

RODRIGUES, SARA. "Angola's Independent Oil Policy." In: Guardian, New York, May 13, 1981, p. 14. Interview with Angolan Minister of Petroleum, Jorge de Morais. (290)

SHREEVE, GAVIN. "Angola: Private Businesses Push for Formal Links with Luanda." In: Africa Economic Digest, London, October 10, 1980, p. 21. Describes how the American private sector is beginning to put pressure on the Carter administration for diplomatic recognition of Angola, in a campaign led by Melvin Hill, the president of Gulf Oil and Exploration Company. (291)

Botswana

General

BALDOCK, J.W., comp. Resources Inventory of Botswana: Metallic Minerals, Mineral Fuels and Diamonds. Lobatse, Botswana Geological Survey Department, 1977. 69 pp., illus., maps. Mineral Resources Report, no. 4. (292)

BOTSWANA. MINISTRY OF MINERAL RESOURCES AND WATER AFFAIRS. Duties and Responsibilities of the Ministry of Mineral Resources and Water Affairs. Gaborone, 1977. 72 pp., illus. (293)

"Botswana: Financial Times Survey." In: Financial Times, London, April 6, 1981, pp. 19-23. (294)

BOTSWANA POWER CORPORATION. Annual Report and Statement of Accounts. Gaborone, 1978. 1 vol. (295)

Botswana: Renewable Energy Technology Project. Washington, D.C., Agency for International Development, 1980. 1 vol., illus. Project no. 633-0209. Examines locally available energy resources in Botswana, with a view to reducing the need for imported fuels. (296)

"Botswana's Sands Reveal Their Treasure." In: African Business, London, February 1979, p. 11. "The final report of the airborne magnetic survey covering 80% of Botswana has just been released and shows positive evidence of many minerals under the Kgalagadi sands." (297)

KATOROBO, JAMES. The Hierarchy of Rural Development in Botswana. Gaborone, Institute of Development Management, 1978. 82 pp., illus. IDM Research Paper, no. 3. Reports on a study of rural development in Botswana undertaken in 1977

that attempted to document whether scarce development resources are distributed fairly and equitably to different groups and regions of a given country or if they are distributed hierarchically, with most resources concentrated into a few focal growth points and among a few strategic elites. Examines the following dimensions of rural life: health care; water supply systems; energy supply systems; land resources and policies; market systems; transportation networks; technology; credit and finance; and political and administrative power and influence. (298)

MC CARTHY, STEVE. Bigger Is Better in Power: A Study of the Botswana Power Corporation. Gaborone, Institute of Development Management, April 1978. 27 pp., illus. IDM Studies in Development Management, no. 5. Describes the importance of the provision of power in development, noting that power demand in Botswana still remains small so that these potential economies are not yet fully realized. As a result, power remains expensive in Botswana, available primarily in towns. For rural development to be achieved and urban migration slowed, the importance of power for rural villages is stressed. At least a decade is projected before effective power transmission networks will be operative. (299)

"Power Corporation Receives CDC Loan." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2323, November 25, 1980, p. 14. Text origin: Daily News, Gaborone, October 13, 1980, p. 1. Reports the signing of a £5 million loan between the Commonwealth Development Corporation and the Botswana Power Corporation to finance the expansion of the Gaborone Power Station. (300)

"Preparing for the Mineral Boom." In: The Courier, Brussels, September/October 1980, pp. 30-33. Interview with Dr. Quett Masire on Botswana's development plans and the role of the EEC and regional cooperation in establishing Botswana's economic independence. The interview took place before the death of President Seretse Khama, when Dr. Masire was still Vice President and Minister of Economic Planning. (301)

SIMON, BERNARD. "Botswana: Looking for Investors." In: Africa Economic Digest, London, August 15, 1980, p. 2. Describes openings for foreign investment in labor-intensive industries that make use of the nation's natural resources. (302)

WEISS, RUTH. "Botswana: Rapidly Building a Mineral Fortune." In: African Business, London, October 1980, p. 26. Describes Botswana's continuing mining developments that are making the country a growing mining power. (303)

Coal

BALDOCK, J.W. & DEREK GREEN, ed. & comp. Coal Exploration Records of Boreholes. Gaborone, Botswana Ministry of Mineral Resources and Water Affairs, Geological Survey Department, n.d. 1 vol., illus. (304)

NGANUNU, JULIAN. "Back to Coal." In: Botswana Magazine, Gaborone, no. 5, 1980, pp. 23-25, illus. Reviews revived interest in Botswana's coal reserves as an

alternative energy source.

(305)

SILITSHENA, R. Coal Mining in Botswana: Resources Exploitation of Self-Sufficiency. Gaborone, National Institute of Development and Cultural Research, 1975. 1 vol. Working Paper no. 2. (306)

Solar

WEENAN, C. and others. "A Solar Water Heater from Botswana." In: Appropriate Technology, Forest Grove, Oregon, Vol. 7, no. 2, 1980, pp. 4-5, illus. Describes a solar water heater constructed from materials costing the equivalent of £95." (307)

Wood

U.N. ECONOMIC COMMISSION FOR AFRICA. Concerning the Introduction of a Charcoal Industry into Botswana. Addis Ababa, n.d. 19 pp. Document no. M77-437. (308)

WHITE, RICHARD. A Handbook for Village Woodlot Planning and Management in Botswana. Gaborone, May 1979. 95 pp., illus. Village Area Development Project, Hukuntsi. Intended to aid members of the Forestry Unit, agricultural officers, and Council and Land Board members and employees to facilitate development of forests and woodlands extension programs. Aims to reduce the time expended by women in firewood collection by assuring a firewood supply. (309)

WHITE, RICHARD. A Woodlot Management Plan for the Matsheng Villages. Gaborone, April 1979. 65 pp., illus. Village Area Development Project, Hukuntsi. Outlines a development plan for firewood production in an area including four villages in southwest Botswana. Aims to provide sufficient woodland for household and communal use, conservation, and fiscal management. (310)

Lesotho

General

ARNOLD, GUY. "Diamonds Hold Out Promise of Jobs and Mineral Wealth." In: African Business, London, February 1979, p. 49. Suggests that although "it will not be known for five years whether the promising diamond finds in Lesotho will be proved...traces of coal and uranium seem...to be the only other mineral deposits worth pursuing." (311)

LESOTHO. Kingdom of Lesotho Second Five Year Development Plan, 1975/76-1979/80. Maseru, Government Printer, n.d. 2 vols., illus., maps. Vol. 1 - 273 pp.; Vol.

2 - 163 pp. Energy-related sections are found under "Water and Mineral Resources," and "Economic Infrastructure." (312)

Uranium

KIEWIET, KEITH. "Lesotho: Mineral Hunt to Lessen Reliance on SA." In: The Star, Johannesburg, October 11, 1980, p. 9. Describes uranium search underway in Lesotho's Maluti mountains. (313)

Water

"Lesotho-South Africa Hydroelectric Talks Progress." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2371, p. 15. Translated from Afrikaans. Text origin: Die Transvaler, Johannesburg, January 14, 1981, p. 12. Reports on discussions concerning the Oxbow Highland hydro-electric project. (314)

Wind

WYATT, ALAN. "Wind-Generated Electric Power for Thaba Tseka." In: The Courier, Brussels, November/December 1980, p. 100. Examines possibilities for wind energy use in Lesotho. (315)

Malawi

General

MALAWI. ELECTRICITY SUPPLY COMMISSION. Annual Report and Statement of Accounts, 1977. n.l., 1977. 1 vol. (316)

Alcohol

"Malawi: Ethanol Plant to Cut Fuel Bill." In: Africa Economic Digest, London, February 13, 1981, p. 27. Describes Malawi's efforts to produce ethanol from molasses in order to cut \$1.7 million from the annual fuel bill. (317)

"Molasses Fuel Project to Increase Foreign Exchange." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2372, March 9, 1981, p. 54. Text origin: Daily Times, Blantyre, February 13, 1981, p. 1. Reports that "Production of fuel from molasses by the newly established Ethanol Company Limited, which could save K1.5 million a year in foreign exchange for Malawi, is expected to begin in late 1981...." (318)

Mozambique

General

"Electric Power for Zambezia Province." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2343, January 9, 1981, pp. 47-48. Translated from Portuguese. Text origin: Noticias, Maputo, November 21, 1980, p. 1. Discusses plans for a new electric power plant in Quelimane, Zambezia province, Mozambique. (319)

"Review of Various Electrification Activities." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2355, February 5, 1981, pp. 36-38. Translated from Portuguese. Text origin: Noticias de Beira, Beira, December 1, 1980, p. 2. Contents: "Nacala-Monapo-Nampula Line."-"Small Plant Construction," by Assunção Almeida. (320)

SILVA, CALANE DA. "Silenciosamente a energia vai chegando." In: Tempo, Maputo, 30 de Novembro de 1980, pp. 26-27. Describes progress being made in extending the electrical energy network in Mozambique. (321)

Coal

"Future Coal Terminal at Maputo Port Planned." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2346, January 15, 1981, pp. 65-66. Translated from Portuguese. Text origin: Noticias, Maputo, November 22, 1980, pp. 1-2. (322)

MORGAN, PENELOPE. "Increased Coal Handling Capacity for Maputo Port." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2319, November 13, 1980, p. 19. Text origin: Sunday Times - Business Times, Johannesburg, October 12, 1980, pp. 1+. Examines expansion plans for Maputo harbor. (323)

"Mozambique: Safety Violations Provoke Mines Takeover." In: Africa News, Durham, North Carolina, June 12, 1978, p. 11. Reports that the Mozambican government nationalized the privately-owned Mozambique Coal Company because of its failure to remedy long-standing unsafe conditions. (324)

Water

AZEVEDO, MARIO J. "'A Sober Commitment to Liberation?' Mozambique and South Africa: 1974-1979." In: African Affairs, London, October 1980, pp. 567-84. Explores relations between Mozambique and South Africa starting shortly before Mozambique's independence. Covers trade, harbors, railways, the Cabora Bassa dam, tourism, labor migration, and technical assistance. (325)

"Cabora Bassa." In: Africa Institute Bulletin, Pretoria, Vol. 15, nos. 1-2,

- Summer 1977, pp. 40-45, illus., map. (326)
- "Cabora Bassa: Part of a Grand Electrification Design." In: Africa Economic Digest, London, July 25, 1980, p. 20. Describes the beginning of the second phase of the Cabora Bassa hydro-electric dam in Mozambique. (327)
- "Cabora Bassa Power Cut-off Could Cause Supply Cuts." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2402, April 29, 1981, p. 66. Text origin: The Citizen, Johannesburg, April 16, 1981, p. 9. Examines South African response to possible power losses from the Cabora Bassa electricity scheme. (328)
- DAVID, LUIS. "Energia de Cahora-Bassa desenvolve centro-norte do país." In: Tempo, Maputo, 11 de Maio de 1980, pp. 17-22. Reports on the Cabora Bassa hydro-electric power scheme and its role in the fight against underdevelopment in Mozambique. (329)
- JOHALA, ANTONIO. "\$66m. Electricity Projects Go to Tender Soon." In: Africa Economic Digest, London, March 6, 1981, p. 27. Examines hydro-electric projects in Mozambique. (330)
- MIDDLEMAS, KEITH. Cabora Bassa: Engineering and Politics in Southern Africa. London, Weidenfield and Nicolson, 1975. 367 pp., illus., bibl. (331)
- WEISS, RUTH. "Cabora Bassa Rethink." In: South, London, October 1980, p. 58. Critically examines Mozambique's inheritance in the Cabora Bassa dam, seen as mainly benefitting South Africa as critics warned prior to Mozambique's independence. Notes that Cabora Bassa is said to be a possible major agenda item in future talks between Mozambique and Portugal. (332)
- WILLSON, SIMON. "South Africa Power Still Suffering from Sabotage in Mozambique." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2356, February 6, 1981, p. 15. Text origin: Rand Daily Mail, Johannesburg, January 8, 1981, p. 13. Examines South African dependence on the Cabora Bassa hydro-electric dam in Mozambique. (333)

Wood

- "Carvão vegetal: A carência que não se entende." In: Tempo, Maputo, 5 de Outubro de 1980, pp. 16-20. Argues that the current shortage and high cost of charcoal in Mozambique are not inevitable, and that there could be great benefits from exploiting the potential for charcoal production in Mozambique and from increasing the use of charcoal as a fuel, both in the home and in industry. (334)
- "U.N. Food Assistance for Forestry Sector Development." In: Sub-Saharan Africa Report, JPRS/NTIS, no. 2339, January 5, 1981, pp. 40-41. Translated from Portuguese. Text origin: Noticias, Maputo, November 13, 1980, pp. 1-2. Reports the provision of 28,672 tons of food by the World Food Program to forestry

workers in Mozambique for the benefit of the Ministry of Agriculture's Forestry and Wildlife Department's efforts to "provide raw materials for forestry industries and supply the urban populations with charcoal and firewood." (335)

Namibia

General

"Endeavors to Stem Exploitation of Mineral Wealth." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2348, January 22, 1981, pp. 59-60. Translated from German. Text origin: Allgemeine Zeitung, Windhoek, November 28, 1980, pp. 1-2. (336)

"Facts and Figures on SWA." In: Africa Institute Bulletin, Pretoria, Vol. 16, nos. 4-5, 1978, pp. 165-75. (337)

Mining in SWA/Namibia. Windhoek, Proswa Namibia Foundation, n.d. 1 vol. (338)

MURRAY, ROGER. The Mineral Industry of Namibia: Perspectives for Independence. London, Commonwealth Secretariat, 1978. 127 pp. "A factual survey of existing mineral developments in Namibia with a descriptive analysis of their economic, fiscal, and legal implications." Commissioned by the Commonwealth Fund for Technical Cooperation. (339)

MURRAY, ROGER. "Namibian Mining Industry Prepares for Independence." In: African Business, London, October 1978, pp. 13-14, illus., map. Analyzes possibilities of adjustments in relations between the mining industry and a future independent Namibian government. (340)

U.S. HOUSE OF REPRESENTATIVES. COMMITTEE ON INTERNATIONAL RELATIONS. SUB-COMMITTEE ON INTERNATIONAL RESOURCES, FOOD, AND ENERGY. Resources in Namibia: Implications for U.S. Policy. Washington, D.C., Government Printing Office, 1976. 165 pp. Contains hearings before the Subcommittee on International Resources, Food, and Energy, 94th Congress, held June 10, 1975 and May 13, 1976. (341)

Coal

"Kalahari Coal Could Promote Rail, Iron Industry." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2321, November 19, 1980, p. 90. Text origin: Windhoek Advertiser, Windhoek, October 31, 1980, p. 19. Examines mineral prospects in the Kalahari and their possible impact on Namibia. (342)

PIETERS, DAVID. "Companies Compete for Coalfields." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2372, March 9, 1981, pp. 77-78.

Text origin: Windhoek Advertiser, Windhoek, February 13, 1981, pp. 1-2. Reports that "Developments on the Nossob coalfield near Aranos in the southwest of SWA are taking significant turns as Anglo-American's intensive exploration programme in the area expands and new corporate mining interests begin to emerge on the scene." (343)

Oil & Gas

"Namibia: Oil Exploration Begins." In: Southern Africa, New York, July/August 1980, pp. 18-22. Describes exploration efforts by the Estosha Petroleum Company with financing from Allen & Co., a New York investment banking firm. (344)

Uranium

BAILEY, MARTIN. "Namibia's Uranium Riches: Debate on Future Control." In: African Development, London, Vol. 10, no. 7, July 1976, p. 679. "Under the soil of Namibia lies extensive mineral wealth, in particular uranium. On the surface the majority live in poverty. As Namibia is moved to the fore of the liberation struggle, the question of control of its resources becomes more crucial." (345)

DECORMIS, ANNA. "Multinationals Are Raping Namibia." In: Guardian, New York, July 30, 1980, p. 13. Analyzes the U.N. Council for Namibia hearings (July 7-11, 1980) "on the exploration, purchase, transportation, and processing of the country's uranium and on the exploitation of the Namibians in the industry." (346)

"Hearings on South Africa's Exploitation of Uranium Planned for June-July." In: U.N. Chronicle, New York, May 1980, p. 10. (347)

MARGOLIES, JANE. "R.T.Z.'s Wonderful Multinational Money Machine." In: The Nation, Marion, Ohio, October 18, 1980, pp. 373-75. Focuses on Britain's Rio Tinto Zinc's global investments and its mining of uranium in Namibia in defiance of the United Nations. (348)

"Multinational Firms Drain Namibia of Its Uranium Resources." In: Developing Country Courier, McLean, Virginia, October 1980, pp. 196-97. Reports on U.N. hearings concerning the exploitation of Namibian resources by South Africa and the West, in violation of a 1974 U.N. ruling. (349)

MURRAY, ROGER. "RTZ's First Report on Rossing Uranium." In: African Business, London, September 1978, p. 41. Describes the first company report on Namibian mining developments in uranium, including "for the first time a full statement of the company's policy in the crucial fields of labour policy, manpower training and safety, all of which have provoked adverse comment in the past." (350)

"Namibian Uranium: The Hand of Whitehall." In: Africa, London, April 1980, pp.

52-58. Critically examines British political and economic interests concerning Namibian uranium. (351)

"Namibia's 'Yellowcake Road.'" In: Africa News, Durham, North Carolina, August 18, 1980, pp. 5-10. Examines the strategic uranium resources that were the focus of U.N. Council for Namibia hearings. (352)

PFOOTS, ANITA. "U.N. Hearings Target Uranium Mining." In: Southern Africa, New York, September/October 1980, pp. 20-21. Focuses on uranium mining in Namibia, which was the subject of an inquiry at five days of hearings by the United Nations Council for Namibia in July 1980. Cites the film, "Follow the Yellowcake Road," by Ian Mc Bride, and the testimony of Western experts and representatives of inter-governmental organizations such as the International Atomic Energy Agency. (353)

"The Plunder of Namibia's Natural Resources." In: Episcopal Churchmen for South Africa, New York, January 1980, pp. 1-2. Editorial comment condemning the involvement of transnational corporations in Namibia's economy in defiance of the U.N. Council for Namibia, with particular reference to uranium. (354)

ROBERTS, ALUN. "How the British Government Is Stealing Namibia's Uranium." In: New Internationalist, Wallingford, England, January 1979, pp. 28-29. Notes that "The British government has a contract with Rio Tinto Zinc for 7,500 tons of Namibia's uranium," and that "while pressing publicly for the territory's independence, the British government in fact has a large interest in ensuring a continuing South African presence." (355)

ROBERTS, ALUN. The Rossing File: The Inside Story of Britain's Secret Contract for Namibian Uranium. London, Campaign Against the Namibian Uranium Contract (CANUC), 1980. 68 pp. "With the help of information obtained under strict security measures, The Rossing File carefully documents the miserable conditions at the Rossing mine, the various applications of South Africa's apartheid principles, and the major health hazards from low-level radiation at the mine...." (356)

SIMONNOT, PHILIPPE. "Les Retombées de l'uranium." In: Jeune Afrique, Paris, no. 989, 19 décembre 1979, p. 23. Questions why various actors involved in the unraveling of the transport of uranium from Namibia to France are keeping quiet, especially Angola and Algeria -- which allowed the flights to use their airspace -- and SWAPO -- which issued a rather luke-warm condemnation of the affair, first revealed by Liberation. (357)

SINGHAM, A.W. "Namibia and Nuclear Proliferation." In: Third World Quarterly, London, Vol. 3, no. 2, April 1981, pp. 277-86. Discusses the issue of uranium exploitation in Namibia in light of the territory's contested international status and recent international efforts to oppose such exploitation. Cites the U.N. special hearings during the summer of 1980, health hazards from uranium mining, the role of transnational companies, the involvement of West European nations in the transport of uranium, South Africa's nuclear capability, the

African political context, and proliferation. (358)

SINGHAM, A.W. "Uranium Colony: The Illegal Exploitation of Namibia." In: The Nation, Marion, Ohio, October 18, 1980, pp. 371-73. Namibia's uranium along with other riches -- diamonds, zinc, copper, and possibly oil -- is seen as the main reason for South Africa's "determination to continue its illegal possession." (359)

Swaziland

General

"Energy Master Plan to Be Prepared." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2326, December 2, 1980, p. 101. Text origin: Times of Swaziland, Mbabane, November 13, 1980, p. 2. (360)

SWAZILAND. Third National Development Plan: 1978/79-1982/83. Mbabane, Swaziland Printing & Publishing Company, n.d. 264 pp., illus., maps. Contents include sections on "Mining," "Power," and "Water Resources." (361)

SWAZILAND. ELECTRICITY BOARD. Annual Report and Statement of Accounts, 1977-1978. n.l., n.d. 1 vol. (362)

SWAZILAND. MINISTRY OF WORKS, POWER, & COMMUNICATIONS. Annual Report of the Financial Year, 1976-1977. Mbabane, 1977. 94 pp. (363)

Coal

"Japanese Help in Coal Probe Reported." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2354, February 5, 1981, p. 63. Text origin: Times of Swaziland, Mbabane, January 12, 1981, p. 1. Describes Japanese aid to finance coal exploration in Lubhuku, Swaziland. (364)

"Swaziland Survey." In: African Business, London, June 1979, pp. 51-58. Contents: "Lying Low Between South Africa and Marxist Mozambique."-"Sugar: The Key to an Inland Economy," by G. Arnold.-"A Lucky Country the Tourists Have Yet to Find," by G. Arnold.-"Plenty of Coal in Reserve." (365)

Water

KANE-BERMAN, JOHN. "Swaziland: Hydroelectric Project Will Double Output." In: Africa Economic Digest, London, September 5, 1980, p. 4. Reports on the proposed Lupohlo-Ezulwini project which is aimed at reducing Swaziland's 30-40 percent dependence on South Africa for electricity. (366)

"Stiff Competition for Hydro Project." In: Africa Economic Digest, London, February 20, 1981, p. 27. Reviews possible contractors for the Lupohlo-Ezulwini hydro-electric project in Swaziland. (367)

"Swazi-South African Hydro-Power Talks Reported: Lusushwana River Considered." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2354, February 5, 1981, p. 1. Text origin: Times of Swaziland, Mbabane, January 14, 1981, p. 1. (368)

"Water Dependence Claim Denied." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2354, February 5, 1981, p. 2. Text origin: Times of Swaziland, Mbabane, January 15, 1981, p. 15. Reports on controversy surrounding possible South Africa control of water slated for the Lusushwana river hydro-electric project in Swaziland. (369)

Tanzania

General

"Energy Experts Reviewing Report on Nation's Energy Policy." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2351, January 29, 1981, pp. 133-34. Text origin: Daily News, Dar es Salaam, January 8, 1981, p. 1. Examines Tanzania's energy needs outlined in a 137 page report by the International Institute for Environment and Development. Contents: "Most Delegates Hail Report."-"Energy Crisis 'Vicious Circle.'" (370)

HILL, WILLIAM THOMAS. Food, Energy, and Population: Are They "World" Problems? An Analysis of Policy Responses in Brazil, Tanzania, the United States, and Yugoslavia. n.l., University of Massachusetts, 1980. 369 pp. PhD Dissertation, Political Science. (371)

LENGA, BROWN. "Tanzania Searches for Mineral Wealth." In: African Business, London, March 1979, pp. 16-17, map. Reports high potential for uranium, coal, and iron ore in Tanzania, as well as large reserves of gas on Songo Songo Island. (372)

NILSEN, ODD. A Bibliography of the Mineral Resources of Tanzania. Uppsala, Sweden, Scandinavian Institute of African Studies, 1980. 92 pp. (373)

"TANESCO Buying Generators, Building Power Stations." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2381, March 25, 1981, p. 35. Text origin: Daily News, Dar es Salaam, March 2, 1981, p. 3. Examines the activities of the Tanzania Electric Supply Company (TANESCO). (374)

TANZANIA. BUREAU OF STATISTICS. Directory of Industries 1975. Dar es Salaam,

1976. 157 pp. "Lists Mining, Manufacturing, Electricity Generation, and Electric Power Distribution establishments with ten or more employees." (375)

TANZANIA. MINISTRY OF INDUSTRIES, MINERAL RESOURCES, & POWER. Annual Report of the Mineral Resources Division. n.l., n.d. 1 vol. (376)

TANZANIA NATIONAL SCIENTIFIC RESEARCH COUNCIL. Energy Systems and Development in Tanzania. Dar es Salaam, 1978. 7 pp. Paper presented to the 10th Commonwealth Science Council, Georgetown, Guyana, September 4-16, 1978. (377)

Coal

"Tanzania: Ready to Turn to Coal." In: African Business, London, November 1980, pp. 25-27. Reports Tanzania's readiness to exploit coal deposits in the south-west. (378)

Solar

BROWN, N.L. & J.W. HOWE. "Solar Energy for Village Development." In: Science, Washington, D.C., 1978, pp. 651-57. Examines solar energy development, with an emphasis on Tanzania. (379)

NKONOKI, SIMON R. Energy Systems and Solar Technologies in Tanzania's Socio-Economic Development. Dar es Salaam, 1979. 41 pp., bibl. Presented to the African Solar Energy Workshop, Atlanta University, Georgia, May 22-26, 1979. (380)

Workshop on Solar Energy for the Villages of Tanzania, Dar es Salaam, 1977: Staff Summary Report of Workshop. Washington, D.C., Agency for International Development, 1977. 53 pp. "Discusses the possibility of using solar energy as an alternative to fossil fuel. The potential value of solar energy was considered for Tanzanian villages as well as the significance of solar energy for an environmentally sound design for Dodoma, the proposed capital of Tanzania." (381)

Workshop on Solar Energy for the Villages of Tanzania: Report. Washington, D.C., Agency for International Development, 1978. 177 pp., illus., maps. Jointly sponsored by the Tanzania National Scientific Research Council, Board of Science and Technology for International Development, and the National Academy of Sciences, National Research Council. (382)

Water

AMBALI, ERNEST. "Mtera Dam Opening Ends Phase Two of Kidatu Power Station." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2369, March 4, 1981, p. 75. Text origin: Daily News, Dar es Salaam, February 2, 1981, p. 1.

- Examines the progress of the Kidatu hydro-electric project in Tanzania. (383)
- AMEALI, ERNEST. "Second Phase of Hydroelectric Power Project Opening." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2372, March 9, 1981, p. 141. Text origin: Daily News, Dar es Salaam, February 16, 1981, p. 1. Reports on the up-coming inauguration of the Mtera Dam, the second phase of the Kidatu hydro-electric project in Tanzania. (384)
- "Environment Impact Study Being Made of Planned Rufiji River Dam." In: Sub-Saharan Africa Report, JPRS/NTIS, Springfield, Virginia, no. 2389, April 7, 1981, p. 47. Text origin: Daily Nation, Nairobi, March 17, 1981, p. 5. Reports that Tanzania hopes to learn from past mistakes by making evaluations of the impact of the planned Rufiji River hydro-electric project on the ecology of the area. (385)
- LAND, THOMAS. "Tanzania Exercising Care on Hydroelectric Project." In: Journal of Commerce, New York, June 11, 1981. Examines the Rufiji hydro-electric project in Tanzania. (386)
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— AUTHOR INDEX —

- Africa, 133, 351, 413
Africa Business & Economic Review,
090, 093, 107, 111, 147, 148, 149,
150
Africa Confidential, 097, 139, 189
Africa Economic Digest, 280, 317,
327, 367
Africa Institute Bulletin, 326, 337
Africa News, 095, 129, 234, 324, 352
African Affairs, 145
African-American Scholars Council,
417
African Business, 131, 144, 146, 260,
261, 285, 297, 365, 378, 401, 410,
461, 462
African Solar Energy Workshop,
Atlanta, Georgia, 166
Agarwal, Anil, 167
Agenda, 010
Almeida, Assuncao, 320
Alnasrawi, A., 001
Ambali, Ernest, 383, 384
Arnold, G., 144, 146, 260, 311, 365
Arnold, J.E.M., 082
Ashton, Chris, 467, 472
Ashworth, J.H., 002
Asset, 003
Attiga, Ali Ahmed, 009
Authie, Xavier, 130
Azevedo, Mario J., 325
- Bach, Wilfred, 004
Backgrounder, 248, 272
Bailey, Martin, 252, 345
Bailey, Richard, 009
Baker, Graham, 201
Baker, Jonathan, 132
Bakr, Abdel Abu, 178
Baldock, J.W., 292, 304
Baldwin, P., 025
Ball, James, 282
- Barnaby, Frank, 179, 187
Baum, Vladimir, 051
Baxter, B., 144, 260
Bedell, Berkley, 040
Beurskens, H.J.M., 393
Bever, B.M., 202
Bever, J.A., 202
Bhathena, Noshir, 092
Black, R.A., 418
Brown, Lester, 041, 042, 043
Brown, Norman L., 010, 379
Bosse, Peter, 052
Bota, Kofi Bimpong, 168
Botswana. Ministry of Mineral
Resources and Water Affairs, 293
Botswana Power Corporation, 295
Buckley, C.M., 073
Bulletin of the Africa Insitute of
South Africa, 143, 221
Buxton, James, 134
Byer, Trevor A., 012, 055
- Campbell, W. Black, 169
Castelino, John B., 212
Catinot, R., 191
Cherry, Mary, 083
Chigodo, Tim, 450
Cleveland, Harlan, 005
Cluver, Gus, 236, 253
Cohen, Barry, 135
Commission of the European
Communities, 006, 007
The Courier, 301
Crabbe, David, 008
Croll, Donald O., 053
- Darrow, Ken, 396
David, Luis, 329
Davis, John, 457
Dean, R.M., 205
Decormis, Anna, 346

Deffeyes, Kenneth S., 074
 Deutsch, Richard, 136
Developing Country Courier, 349
 Dieng, Aziz, 180
 Diop, Cheikh Anta, 094
 Donaldson, Graham, 084
 Duyzings, Martin W., 137

East African Community. East African
 Statistical Department, 206
 Eckholm, Erik P., 085
Economic Geology, 215
 Eggers-Lura, A., 067
 Eilers, William, 010
 Emembolu, G.E., 138
Engineering News-Record, 250
Episcopal Churchmen for South Africa,
 354
 Erickson, David M., 075
Europe Information Series, 070
Europe Outremer, 081
 Exxon Corporation. Department of
 Corporate Planning & Department of
 Public Affairs, 011

Fallen-Bailey, Darrel G., 012, 055
 Fettweis, Gunter Bernhard, 048
Financial Mail, 216, 251, 255, 445,
 446
Financial Times, 294
 Fleuret, Anne K., 397
 Fleuret, Patrick C., 397
Foreign Report, 259, 281
 Freeman, Peter H., 086
 French, David, 098, 192
 Friedmann, Efrain, 056

Gallagher, J. Michael, 049
 Gamser, Matthew S., 087
 Gaunt, John, 276
 Geus, Arie de, 099
 Gibson, Paul, 043
 Gillis, Malcolm, 075
 Goldemberg, Jose, 076
 Goodman, Raymond, 013, 056
 Green, Derek, 304
 Green, Reginald Herbold, 140
 Greene, Robert P., 049
 Grossling, Bernardo F., 057

Grundy, Trevor, 423, 424, 425, 448,
 473
 Gulick, Frances A., 102, 194

Hamilton, John Maxwell, 010
 Hamed, K.A., 145
 Hammer, Turi, 170
 Hancock, Graham, 134, 179
 Hanlon, Joseph, 394
 Heinemeier, Dan, 141
Herald, 447
 Herman, Barry Martin, 254
 Heylin, Mike, 240
 Hill, Melvin J., 286
 Hill, William Thomas, 371
 Hilling, David, 100, 145
 Hoffman, Thomas, 014, 015, 058
 Hoppe, Richard, 241
 Hoskins, Marilyn W., 193
 Howard, Carol, 399
 Howe, James, 016, 101, 102, 103, 194,
 379
 Hubscher, Francoise, 171
 Hughart, David P., 017

Industrial Zambia, 398, 408
 International Atomic Energy Agency,
 077

James, H.E. Boydell, 267
Jeune Afrique, 154, 273
 Johala, Antonio, 330
 Johnson, Brian, 014, 015, 058
 Johnson, David S., 400
Journal of Commerce, 452

Kane-Berman, John, 242, 366
 Katorobo, James, 298
 Khamala, Canute P.M., 212
 Kiewiet, Keith, 313
 Kitazawa, Yoko, 268
 Klein, Stephen, 010
 Klem, G.S., 195
 Knowland, William E., 027, 103
 Kock, Daan de, 243
 Kohli, Harinder S., 044

Laishley, Roy, 104, 142
 Lambertini, Adrian, 018, 059

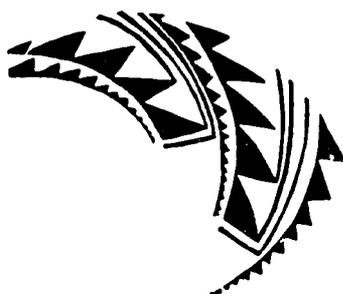
- Land, Thomas, 125, 172, 386
Lanning, Greg, 105, 213
Lea-Cox, N., 426
Lenga, Brown, 372
Leslie-Smith, Ian, 427, 428
Lesotho, 312
Lewis, Stephen R., 429
Liff, David, 256
Linsell, David, 257, 460
- MacGregor, Ian D., 074
MacKerron, G.S., 073
MacKillop, Andrew, 019, 068
Madison, Christopher, 020
Makoni, Simbi, 430
Malawi. Electricity Supply
Commission, 316
Malu Wa Kalenga, 182
Mannin, Errol, 244
Manning, Robert, 245
Margolies, Jane, 348
Martin, Jean-Marie, 021
McBride, Richard, 008
McCarthy, Steve, 299
Meyerowitz, Andre, 269
Mezger, Dorothea, 214
Middlemas, Keith, 331
Miller, Daphne, 022
Miller, Morris, 023
Mining in Zimbabwe Rhodesia 1979,
432
Moll, Ulrike, 060
Morgan, Penelope, 323
Moseley, Ray, 431
Mruma, Isaac, 387
Mrumay, Isaac, 388
Mueller, Marti, 105
Murray, Roger, 183, 184, 185, 270,
277, 339, 340, 350
- Natural Resources & Energy, 039
New African, 209
Nganunu, Julian, 305
Nilsen, Odd, 373
Nkonoki, Simon R., 380
Norconsult A.S., 389
Nuclear Energy Agency, 077
- Ochola, Samuel Agonda, 108
- OECD Observer, 054
Offshore, 164
Ogendo, R.B., 217
Oguntoyinbo, J.S., 173
Oil & Gas Journal, 066
Olende, S. Arungu, 109
O'Neill, Peter, 110
Onis, Juan de, 061
Organization of African Unity, 151
Oyowe, Augustine, 152
- Palmedo, P.F., 025
Palz, W., 069
Pannu, S.S., 138
Parker, Aida, 153
Payne, Adam, 247
Pearson, Ruth, 288
Pendse, D.R., 009
Penrose, Edith, 145
Perrson, Reidar, 196, 197
Petroleum Economist, 284
Pfouts, Anita, 353
Pieters, David, 343
Poulsen, Gunnar, 198
Power, Gwynne, 278
Power Line, 249
Prain, Ronald, 186
PRC Energy Analysis Company, 174
- Quarterly Energy Review: Africa, 079,
114
- Radajewski, W.C., 468
Rake, Alan, 126, 155, 156
Ramesh, Jairam, 078
Regional Seminar on Solar Energy in
Africa, Niamey, 175
Reichel, R.S., 395
Rensburg, W.C.J. van, 218
Rhodesia. Central Statistical
Office, 433, 434
Rhodesia. Electricity Supply
Commission, 435
Roberts, Alun, 355, 356
Roder, Wolf, 400
Rodrigues, Sara, 290
Roschin, G., 113
Rowen, Hobart, 062
Rushmere, Martin, 464

Sabato, Jorge A., 078
 Samanta, Purna, 403
 Schissel, H., 144, 260
 Schmidt, W.L., 279
 Shakespeare, A.G., 219
 Shihata, Ibrahim F.I., 157
 Shija, Pascal, 167
 Shreeve, Gavin, 176, 187, 291, 436, 449
 Sigisbert, G., 158, 159, 160
 Silitshena, R., 306
 Silva, Calane da, 321
 Simeons, C., 080
 Simon, Bernard, 302
 Simmonnot, Philippe, 357
 Simonsen, H.A., 267
 Singham, A.W., 358, 359
 Sivard, Ruth Leger, 010, 026
 Smil, Vaclav, 027
Southern Africa, 258, 344
 Southern Africa Development Coordination Conference, Arusha, 220
Standard Bank Review, 237
 Stanley, Bob, 010
 Stanley, Dick, 396
Statistical and Economic Information Bulletin for Africa, 096
 Steele, Henry, 161
 Story, Christopher, 162
 Stout, B.A., 028
Sub-Saharan Africa Report, JPRS/NTIS:
 Allgemeine Zeitung, Windhoek, 336
 Business Herald, Salisbury, 421, 422, 455, 456, 463, 465, 470
 The Citizen, Johannesburg, 239, 264, 328, 439
 Daily Mail, Lusaka, 406, 409
 Daily Nation, Nairobi, 385
 Daily News, Dar es Salaam, 370, 374, 390, 391
 Daily News, Gaborone, 300
 Daily Times, Blantyre, 318
 Die Transvaler, Johannesburg, 207, 314
 Ethiopian Herald, Addis Ababa, 210
 Financial Gazette, Salisbury, 233
 Herald, Salisbury, 211, 232, 420, 438, 453, 454, 458, 459, 466, 469, 471
 Jornal de Angola, Luanda, 283, 289
 Noticias, Maputo, 319, 320, 322, 335
 Rand Daily Mail, Johannesburg, 287
 Sunday Mail, Salisbury, 275, 419, 451
 Sunday Times of Zambia, Lusaka, 407
 Times of Swaziland, Mbabane, 360, 364, 368, 369
 Times of Zambia, Lusaka, 203, 204, 262, 402, 405, 415, 416
 Windhoek Advertiser, Windhoek, 246, 342
 Zambia Daily Mail, Lusaka, 411, 412, 414
 Sullivan Elizabeth, 010
 Swaziland, 361
 Swaziland. Electricity Board, 222, 362
 Swaziland. Ministry of Works, Power, & Communications, 363
 Synge, Richard, 115

 Tanzania. Bureau of Statistics, 375
 Tanzania. Ministry of Industries, Mineral Resources, & Power, 376
 Tanzania. Ministry of Water Development, Energy, & Minerals, 392
 Tanzania National Scientific Research Council, 377
 Tanzer, Michael, 029
 Telford, William, 127
Tempo, 334
Third World Quarterly, 009
The Times, 271
 Tinker, Irene, 030
To the Point, 091, 263
To the Point International, 235
 Turner, Louis, 063
 Turner, Terisa, 115

 Ulinski, Carol A., 116, 199
U.N. Chronicle, 266, 347
 U.N. Centre on Transnational Corporations, 223
 U.N. Economic and Social Council, 117, 118, 188

U.N. Economic Commission for Africa,
 119, 120, 163, 224, 225, 226, 227,
 228, 229, 308
 U.N. Environment Programme, 071
 U.N. Industrial Development
 Organization, 031
 U.N. Secretary-General, 032
 U.S. Central Intelligence Agency.
 National Foreign Assessment Center,
 064
 U.S. Department of the Interior.
 Bureau of Mines, 121
 U.S. General Accounting Office, 033
 U.S. House of Representatives.
 Committee on Foreign Affairs.
 Subcommittee on International
 Economic Policy and Trade, 034
 U.S. House of Representatives.
 Committee on Interior and Insular
 Affairs. Subcommittee on Mines and
 Mining, 230
 U.S. House of Representatives.
 Committee on International
 Relations. Subcommittee on
 International Resources, Food, and
 Energy, 341, 437
 U.S. House of Representatives.
 Committee on Science and
 Technology, 122
 Vance, Cyrus R., 010
 Vegiroglu, T. Negat, 072
 Villiers, Cas de, 231
 Walters, Ronald W., 274
 Walton, J.D., Jr., 177, 200
 Ward, Barbara, 035
 Webster, Mark, 265
 Weenan, C., 307
 Weiss, Ruth, 303, 332
 West, J.W., 440
West Africa, 045, 112, 181
 White, Richard, 309
 Whittaker, Donald, 046, 088
 Willson, Simon, 333
 Wilson, Ernest J., III, 123
 Wolff, Theodore, 441
 Wood, Dennis, 089
 Workshop on Energy Data of Developing
 Countries, Paris, 036, 037
 World Bank, 038, 047, 050, 065
 World Energy Conference, 124
 Wright, John, 165
 Wyatt, Alan, 315
 Zambia. Office of the President.
 National Commission for Development
 Planning, 404
 Zimbabwe. Central Statistical
 Office, 442
 Zimbabwe. Electricity Supply
 Commission, 443
 Zimbabwe. Ministry of Information,
 444



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