AFRICA'S ENERGY POTENTIAL

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AFRICA'S ENERGY POTENTIAL

Thursday, March 16, 2000

HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON AFRICA
COMMITTEE ON INTERNATIONAL RELATIONS
WASHINGTON, D.C.

The Subcommittee met, pursuant to notice, at 2 p.m., in room 2200 Rayburn House Office Building, Hon. Edward R. Royce, (Chairman of the Subcommittee) presiding.

Mr. ROYCE. This hearing of the Subcommittee on Africa will come to order. Today the Subcommittee will look at the development and use of energy resources in Africa. This is an important issue.

In order to improve the lives of their citizens, African nations need to develop affordable energy that is reliable and is environmentally friendly. Some African countries are major exporters of energy resources which brings them significant political and economic challenges.

The democratically elected Nigerian government of President Obasanjo, for example, is facing a very difficult challenge posed by Nigeria's production of over 2 million barrels of oil a day. To succeed with Nigeria's national revival, President Obasanjo must address legitimate grievances over revenue sharing and environmental polices—grievances ignored by the previous military regime—while rejecting the small element of radicals in the oil-rich Delta region who are committed to violence and destruction and who have halted production on several occasions.

Foreign oil and gas companies face their own task of being part of the solution in Nigeria and elsewhere in Africa. Energy development can also raise diplomatic questions. Many Americans are concerned that a Canadian oil company is helping Sudan's National Islamic Front regime to develop that warn-torn country's oil sector.

Energy revenue can be less than a blessing economy-wise. Academic studies suggest that an oil boom leads to a weaker performance in other sectors of an economy. Once a government feels flush, the pressure to reform is relieved and the non-energy sectors of the economy wither. This is largely in the past been the Nigerian experience. New offshore production doubled Equatorial Guinea's GDP overnight. This small country just now successfully manage this boom. Other Africa countries confront similar economic and political challenges.

Resource management issues are all the more pressing because Africa is developing an increasing amount of its energy resources. With technology allowing for ever deeper offshore drilling, West Africa is now considered to be one of the world's top regions for petroleum prospects. An American oil company recently made a billion barrel discovery off the Nigerian coast. Another company has announced a $8.5 billion investment in Nigeria, which is the largest industrial investment in the history of the continent. Meanwhile, interest in oil exploration is spreading to East Africa.

Africa has more than petroleum though. Some 17 African countries hold potential as major natural gas producers. A liquefied natural gas plant off the Nigerian coast recently came on line. This is one of the biggest industrial projects in Africa. In the works for Nigeria is another project to supply natural gas to Ghana, Benin and Togo. Natural gas is increasingly seen as the energy of the future, being cleaner and cheaper than other energy resources. Developing Africa's natural gas should help African countries overcome their heavy dependence on the environmentally destructive practice of burning wood to produce energy. Africa's hydroelectric potential is nearly limitless. Congo alone has the potential to light up half the continent.

The U.S. has a significant interest in Africa's energy development. Our country would be better off if African countries developed their economies while protecting the environment. We have an interest in seeing that energy resources do not fuel African conflicts and we are major consumers of African produced oil, some 15 percent of America's oil imports are from Africa. Given Africa's potential, this figure promises to grow. Analysts suggest that West Africa could soon rival the Persian Gulf in terms of strategic significance to America.

The U.S. has an obvious interest in greater oil exploration and development in Africa, especially in light of the recent hike in prices Americans are paying at the pump. This interest gives us even more reason to be attentive to Africa's many energy challenges. Today the Subcommittee will hear from the U.S. Department of Energy which is spearheading U.S. Government energy efforts in Africa, and a private witness, who will share his views on energy issues in Africa.[The statement of Mr. Royce appears in the appendix.]

Mr. ROYCE. I will now turn to the Ranking Member of the Subcommittee, Mr. Donald Payne of New Jersey for an opening statement.

Mr. PAYNE. Thank you very much, Mr. Chairman. Let me commend you for calling this very important hearing at a time when we know that this is an issue, the question of energy, throughout this country and the world. We in the northwest suffered tremendously because of the home heating fuel problem in addition to the gasoline problem. The fact that the northeast has very little natural gas pipelines and so it certainly hit my congressional district and my State extremely hard.

But I am pleased to join you here to explore Africa's potential and to see what can be done in order to spur this along. As we all know, Africa has a tremendous amount of natural resources, both in oil and natural gas and other potential energy resources and we would like to explore what is going on there.

We all are concerned about the cost of gasoline. We are seeing prices go as high as $2.00 to $2.25 a gallon. This is the sharpest increase in prices over a 2-week period that we have seen in this country since the Persian Gulf War in 1990.

The full International Relations Committee convened a hearing on February 10th to discuss the energy crisis with representatives from the State and Energy Departments. At that time administrative witnesses indicated that there was little that the United States could do to convince the major oil producing nations to increase the international supply of oil.

I know that Secretary Richardson recently returned from a trip to major oil producing nations in which he urged OPEC members to raise production levels. We know that Secretary Richardson has been doing an outstanding job, although he is taking a lot of criticism for OPEC's behavior and I do not know how we can blame him for what the Saudis and the Kuwaitis are doing, but you have got to blame someone in the Administration, so I guess he is the target right now.

We really need to exert pressure to see if we can break this stranglehold that we currently see. According to the President of OPEC, his Excellency Attiah, OPEC produces 40 percent of the world's reserves and in this era of rising oil prices and legislative efforts to pressure the Saudis and others, we need to seek alternative solutions. In addition to other means of energy, we ought to look at how can we expand the potential of the Africa markets where I think trade and investment has sorely lacked as relates to our country's position and I would like to see that as another alternative for additional oil production.

It will be interesting in finding out what role African oil exporters play in setting world oil prices, not just Nigeria, but the other sub-Saharan African countries in the oil cartel, countries like Angola and Gabon and Equatorial Guinea.

Today, the U.S. imports an average of 736,000 barrels today of Nigerian oil or close to 10 percent of the total United States imports and I understand that Angola is not too far behind. If we could substantially increase Africa's production, we could see that the United States could move up to 25 to 30 percent of our oil dependency being on Africa, therefore reducing the cartel, OPEC cartel's control and moving into Mexico and Venezuela could possibly offset the dependency.

Let me say that we are working very hard to insure the passage of the Africa Growth and Opportunity Act. This bill will provide additional incentives for U.S. businesses to tap into Africa's rich oil and natural gas reserves and also to develop its energy infrastructure.

On the international front I am eager to hear from witnesses about the—the representative Humphrey about how the Chad, Cameroon and Benin pipeline project is going and where the proposed pipeline for natural gas which currently has been flared, creating in Nigeria, creating environmental havoc and where the proposed pipeline for natural gas stands at this time.

We would also like to conclude by saying that we are certainly concerned about the continuing problems in the Niger Delta the Chairman mentioned which produces most of Nigeria's 2 million gallons of crude a day. When we visited with President Obasanjo in December, not only did we discuss problems in Nigeria and commending them for other things like ECOWAS troops helping Sierra Leone and Liberia, but we also talked about the role of the Nigerian government and how the problem in the Delta region can be resolved.

So once again, Mr. Chairman, I look forward to the testimony of our witnesses.

Mr. ROYCE. Thank you, Mr. Payne. Mr. Campbell?

Mr. CAMPBELL. Mr. Chairman, in the interest of getting to the witnesses I will simply say thank you for your conscientiousness in holding the hearing. Thank you, Mr. Chairman.

Mr. ROYCE. Thank you, Mr. Campbell.

Congresswoman Barbara Lee made a trip to Nigeria a few months ago, met with an important delegation there on environmental issues and I believe they are here and if I could turn it over to you at this time.

Ms. LEE. Thank you very much, Mr. Chairman.

Let me just say thank you very much and Mr. Payne for your leadership on this issue. Africa's energy potential really is a matter that I do not believe has received significant and sufficient congressional attention and so this hearing is very important today. It is very timely in light of the issues that we are dealing with in this country which Mr. Payne spoke of.

Let me say how excited we are to see the Minister from Nigeria here. We did have the privilege to be in Nigeria and we saw the great potential now in terms of this transition and we know that Nigeria is one of our trading partners and we want to hear from our Administration how our policy toward Nigeria can really help increase the supply of oil and what we need to do from this Committee, at least, in terms of our policies to insure that this be part of our U.S. foreign policy as it relates to Africa.

Also, let me just say Mr. Chairman, I want to hear, I guess from Mr. Humphrey with regard to the whole war in Angola and given that Angola is really one of our major, primary sources of oil, how the devastating civil war is really impacting the oil industry there.

Finally, let me just say that as we look at Africa's energy potential, we also have to be concerned and aware of environmental protections and what the issues are around oil spill cleanup and just all of the other surrounding issues that hopefully we can help address.

Thank you very much for being here and I look forward to this hearing and thank you, Mr. Chairman, for your leadership.

Mr. ROYCE. Thank you. Thank you very much. I will just mention that President Obasanjo announced plans to raise oil production 50 percent over the next 4 years in Nigeria and I would like to ask our delegation to stand at this time, if they would.

If I could ask our guests to stand, Minister of State for Environment, Dr. Ome Oko Pido. He is accompanied by the Chairman of the House and Senate Committees on the Environment, the Environmental Commissioners for the River State and by Elsa State and the Secretary General of the Peoples Democratic Party which won the election last year with the election of their Presidential candidate, President Obasanjo. If I could ask the whole delegation to stand at this time.

We now turn to our first panel. Calvin R. Humphrey is principal Assistant Secretary for International Affairs at the U.S. Department of Energy. Mr. Humphrey has a B.S. degree from Bradley University, a law degree from Georgetown University Law Center and he has completed the Senior Executives in National and International Security Program at Harvard University's John F. Kennedy School. Mr. Humphrey is no stranger to Capitol Hill. He worked as a legislative assistant to former Congressman Lewis Stokes of Ohio after completing law school. He then assumed the position of counsel to the House Permanent Select Committee on Intelligence. In 1995, Mr. Humphrey was promoted to the position of Senior Democratic Counsel for the Committee. In his current position which he has held since 1998, Mr. Humphrey is responsible for advising the Secretary of Energy on international energy affairs.

I thank you for joining us today, Mr. Humphrey.

STATEMENT OF CALVIN HUMPHREY, DEPUTY ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS, U.S. DEPARTMENT OF ENERGY

Mr. HUMPHREY. Thank you, Mr. Chairman, and it is a pleasure to be before the Committee and let me also thank the Ranking Member, Mr. Payne and all the Members of the Committee for your interest in Africa and what the Department of Energy is doing there. I have submitted a statement for the record and with your permission, Mr. Chairman, I would like to read an oral statement that is a synopsis of that complete statement. Thank you.

I am both pleased and honored to appear before you today to discuss the Department of Energy's strong commitment to promoting stability and achieving economic growth on the African continent through sustainable energy development. By promoting sustainable energy development in Africa, we strive to enhance Africa's economic and social development, alleviate poverty, improve health services, increase prosperity and integrate African states into the world economies.

To demonstrate our commitment, last year Secretary Richardson launched the African Energy Initiative at Howard University, an historically black college and university. Under the initiative, the Department of Energy vigorously engages in bilateral and multilateral efforts to promote sustainable energy development and regional integration. The initiative builds upon President Clinton's U.S.-Africa partnership and the blueprint for U.S.-Africa partnership, as you know, was signed in Washington in March 1999 to promote democracy, good governance, human rights, trade and investment and global integration.

In December 1999, Secretary Richardson hosted the U.S.-Africa Energy Ministers conference in Tucson, Arizona. The conference represented the first time that energy ministers from Africa and the United States convened as a collective body to discuss the future of Africa's energy sector. The response was overwhelming. Representatives from 48 countries participated, including 41 energy ministers. They expressed their desire to establish an on-going process and agreed to meet again in South Africa later this year.

From the Department's perspective, we must first and foremost help African countries develop an economic framework that will attract private sector investment. This includes assisting them in the development of independent and effective regulatory bodies and helping them through the restructuring process that must accompany their energy sector development.

Africa is important to us as a key source of diverse energy supply, as a market for energy goods and services, and as a fountain for investment potential. Moreover, we want to support efforts to improve the quality of life in Africa and promote political stability.

With a population of approximately 785 million and an annual growth rate of approximately 20 million, Africa is poised to become the next important emerging market in terms of trade and investment, energy resources and energy consumption. Energy will fuel the engine of economic change and sustainable economic development in Africa. It will also promote a wealth of opportunities for U.S. trade and investment. Africa is the third largest oil exporter to the United States and plays a critical role in our efforts to diversify oil supply. In 1999, Africa exported approximately 1.5 million barrels of oil per day to the U.S. or 15 percent of all U.S. imports. Nigeria, Angola and Algeria were among the largest suppliers.

The development of new infrastructure in the region will allow for an even greater share of the U.S. market. Africa's proven oil reserves of 74.9 billion barrels and proven gas reserves of about 400 trillion cubic feet, can enable African countries to increase their importance to the U.S. market while allowing the U.S. to expand and diversify its oil supplies.

The largest of these reserves are located in Algeria, Nigeria, Angola and Egypt. Oil and gas revenues represent a primary source of income for many African countries. They account for a large share of export revenues and foreign exchange earnings. If managed properly, energy sector development can be a powerful force for fielding the economic development of these countries.

But energy production is just one of the forces for economic development. In 1998, Africa accounted for about 3 percent of the world's primary energy consumption. That is, 13 percent of the world's population consuming just 3 percent of the world's primary energy. Excluding South Africa, Egypt, Algeria, Nigeria and Libya, Africa countries use the same amount of energy as Belgium, a country of only 10 million people.

Clearly, there are huge opportunities for U.S. and African businesses to develop the infrastructure necessary, to increase access to energy for all of Africa's people.

Let me take this opportunity to inform you that just today, earlier this morning the Energy Information Administration released its latest long term forecast for the world. The outlook for Africa is similar to the numbers described in my written testimony, however, I would note that the forecast indicates that total African energy consumption may go up by 76 percent through the year 2000. The most significant growth in consumption is expected in natural gas which could grow 147 percent over the next 20 years.

Several U.S.-based firms have already begun to take advantage of these opportunities. In May 1999, Chevron announced plans to invest $12 billion in its Africa operations over the next 5 years. The

West African gas pipeline is a gas transmission pipeline project designed to connect Nigeria's gas reserves to markets in Benin, Togo, and Ghana. I traveled to Benin last year to lend U.S. Government support to the signing of this historic pipeline agreement. Exxon Mobil is leading the development of the Chad Export Project, a proposed $3.5 billion project to produce and transmit 250,000 barrels of oil per day from southern Chad through neighboring Cameroon to the Atlantic Coast for export to the world and this includes the United States.

Dallas-based Triton Energy has nearly doubled its investment in Africa to about $200 million with its on-going oil develop in Equatorial Guinea. Ethiopia announced the signing of a $1.4 billion joint venture deal with the U.S. firm Secore to develop and transport natural gas. Enron, an oil and gas firm, Houston, Texas, has signed several joint venture agreements with the States of Abuja and Lagos in Nigeria for power development. AES is involved in a 250 megawatt hydroelectric project in Uganda. CMS Energy Corporation is working in Ghana on two 110 megawatt thermal power plants. There are many other examples throughout the continent.

Two key things of the Department's initiative are achieving support from African nations to encourage private sector investment as the vehicle for economic growth and to promote growth that supports the global environment, two themes, Mr. Chairman, you mentioned.

At the U.S.-Africa Energy Ministers Conference, we achieved unanimous support among the ministers on policies and practices that promote economic development, address environmental concerns, encourage private investment, enhance regional integration and increase access to energy for Africa's people. The ministers approved the joint statement on investment principles for the energy sector to demonstrate their commitment to establishing a transparent and reliable framework that encourages expanded trade and private sector investment. The ministers also approved a joint statement on sustainable energy development and cooperation and support of the environment to highlight important measures that can be taken in the energy sector to address global climate change concerns and to promote a sustainable cleaner environment for future generations while at the same time ensuring economic growth.

Bilaterally, the Department has strong programs in many African countries. Our longest running and largest effort is with South Africa, a program initiated in 1995 under the Gore-Mbeki Binational Commission. We have worked on over 100 joint programs. These programs include providing the benefits of renewable energy to rural schools, clinics and homes and offering training to government and business energy experts.

We have begun to expand cooperation with Nigeria. Secretary Richardson visited Nigeria last August and it resulted in the signing of a bilateral cooperation program. The Department, in coordination with USAID is developing an action plan with the government of Nigeria.

In the context of the Angola Bilateral Consultative Commission the Department of Energy will work with the Angolan Energy Ministry to streamline its energy sector and facilitate development of its infrastructure.

With Mozambique, we are involved in the U.S. Government effort to address the recent flood disaster. Department officials traveled to Mozambique last fall and agreed to send a team to evaluate the potential for renewable energy. That program becomes even more important as we revisit the issue of the reconstruction effort.

We know, however, that individual country efforts in a continent the size of Africa will not be an effective way to reach the many. We are working hard to support regional integration with efforts like the West African gas pipeline, the South African power pools and the West African gas power pool. In this regard, we are building pillars of cooperation with regional organizations such as ECOWAS, SADC and COMESA. Under the Africa Energy Initiative, the Department works with countries and regional organizations in Africa along with U.S. agencies and organizations such as USAID, the Overseas Private Investment Corporation and the Export Import Bank to promote sustainable energy development.

We believe energy development in Africa should not only generate export revenues, but must, and I underscore must also respond to internal energy demand and address the issues of sustainable development that benefit all African citizens.

Good corporate citizenship which includes continued investment in local communities and developing indigenous human infrastructure is an important element that we hope to advance under this initiative.

Again, I am pleased to be here with you to discuss Africa's energy potential, U.S. energy policy in Africa. We have an opportunity to build a partnership with African countries that will allow Africa to realize its energy and economic potential and a sustainable economically sound future for all of its people. We believe this initiative will help promote sustainable energy development in Africa and lead to a measurable expansion of U.S. energy cooperation with Africa well beyond the tenure of Secretary Richardson and the Clinton Administration.

Mr. Chairman, Ranking Member, this concludes my oral statement. I will be happy to answer your questions and we look forward to working with you in a cooperative effort.[The statement of Mr. Humphrey appears in the appendix.]

Mr. ROYCE. Thank you, Assistant Secretary Humphrey for your testimony. Let me ask you a few questions. You said last year about 15 percent of America's oil imports came from Africa. Do oil imports in the United States have the potential to increase from Africa over the next few years in your view?

Mr. HUMPHREY. Absolutely, Mr. Chairman. One of the initiatives that is part of the Africa Energy Policy is to work closely with a number of African countries to do a couple of things, No. 1, create a better private sector investment climate in those countries. To do that, we have to work with the African countries to develop a regulatory framework, a framework that includes such things as sanctity of contracts, transparency and process, a streamlined bidding process.

We believe and we have talked with a number of U.S. companies that these are some of their major concerns. If we can address these concerns the private sector will go in. They will be able to make a fair judgment on what the risk associated to their investment will be and they will go to Africa.

Mr. ROYCE. Given the importance of African oil to the United States would it be correct to describe West Africa as strategically important to the U.S.?

Mr. HUMPHREY. Absolutely, Mr. Chairman. West Africa is definitely strategic. Nigeria is the second largest oil producer in Africa. They also have tremendous gas potentials. But there are also strategic alliances in South Africa, East Africa, Central and North Africa. We have talked to a number of companies and in our travels we have found that a number of exploration activities are on-going in all regions of Africa. So to expand upon your question, I would say that the African continent is a strategic reason for the United States to be involved in the energy sector.

Mr. ROYCE. We are going to have to work to make that perception commonplace to have people better understand.

The international community is beginning to normalize relations with Libya which is a major oil exporter. Do you envision U.S. energy firms operating in Libya in the near future?

Mr. HUMPHREY. As you know, Mr. Chairman, U.S. firms were actively engaged in Libya prior to U.S. sanctions which predate U.N. sanctions. The U.N. sanctions have been relaxed at this point in time until after the trial which begins on May 3rd. It is our policy that we want to see a couple of things from Libya first. First, payment of appropriate compensation. Second, cooperation in the trial of the Lockerbie defendants. Third, renunciation and an end to the support of terrorist organizations. If this is done and the State Department really has the lead on this, it will be their judgment that sanctions would be removed. I can assure you that U.S. companies will go in to Libya. It is a tremendous opportunity and they want to go in.

Mr. ROYCE. Let me ask you about the comment that I made earlier about President Obasanjo's announcement to raise oil production by 50 percent over the next 4 years in Nigeria. As part of OPEC last year, Nigeria cut production. What are the prospects for increased production in Nigeria given the political turmoil in the Delta region? If I could ask you that question and also did non-OPEC member Angola reduce oil production in accord with OPEC's decision to cut production last March?

Mr. HUMPHREY. We are aware that President Obasanjo has made comments of his intent, his desire to increase production by 50 percent. We think that that will be a difficult goal to achieve, but that begs the question. Certainly, there is an opportunity to increase production in Nigeria.

You mentioned the problems in the Delta. Secretary Richardson and I visited Nigeria in August. We had an opportunity to go to Escarvos there in the Delta and to talk with some of the representatives of the people there in the Delta. Certainly we think that the government is making progress, is making effort at reconciling some of those differences.

Two things to increase the production, first, again providing an effective investment climate. Investors will invest if they have an investment climate. Notwithstanding the problems in the Delta, having again transparency, streamline bidding process and sanctity of contracts. Second, a number of the oil produced by Nigeria is offshore. So those can be expanded, but it will require technology and U.S. companies and other foreign companies and of course, U.S. companies are second to none and have that technology, but to date they have been a little resistant to invest wholeheartedly in Africa.

Mr. ROYCE. Let me ask you as part of that. When we were there for the election in Nigeria one of the big election issues was the Niger Delta Commission, the concept of putting together a bill to guarantee a certain amount of revenue to go locally to different purposes, basically, that would be decided locally.

What is the status of that bill to provide for more dispersed distribution of oil revenues to the States in Nigeria, if I could ask you?

Mr. HUMPHREY. Mr. Chairman, the latest information that I have is that the differences have been worked out between both Houses, but there is still some fine tuning of the legislation that needs to be done.

I might also add that we did talk about that with President Obasanjo and Secretary Richardson certainly offered his support for measures that do take into account people of the region and look toward putting back some of those resources and to the infrastructure and to the human capital of those regions of Nigeria.

Mr. ROYCE. Let me ask you one last question. How badly is the recent oil spike hitting the economies of the majority of African states that are not oil exporters, that are in fact oil importers? Is this a major threat to their development?

Mr. HUMPHREY. Mr. Chairman, it is devastating them. One of the problems that we see with many of the African countries is first and foremost most of its citizens do not have the resources to pay for energy, notwithstanding the oil spikes that we are presently seeing. But because of the oil spikes, those individuals that had the capability are now experiencing difficulty. This is exacerbating deforestation. People are now going out, cutting down more trees. This is creating desertification problems, the burning is creating greenhouse gas emissions and it is retarding their development. There is an over dependence on the Federal budget in many African countries to import oil. Now that those prices have gone up, they are having to spend even larger portions of their budget for the oil. So, yes, it is having a devastating impact and if it continues it will definitely retard the growth of many African nations.

Mr. ROYCE. Thank you, again. Mr. Payne?

Mr. HUMPHREY. Thank you, Mr. Chairman.

Mr. PAYNE. Thank you very much, Mr. Humphrey, for your comprehensive testimony. Just the last question highlights the difficulty of dependence on oil as the source of energy. I know that there is a tremendous amount of potential for hydroelectrical energy. As a matter of fact, there is, I understand, rivers that start in Angola and go all the way through Africa and up in Mozambique. Along that way it seems that there would be a lot of potential for hydroelectrical power. I heard some statistics years ago that said that Mozambique could probably provide enough energy for all of the countries if they had properly built hydroelectric opportunities.

Have you seen any interest on the part of U.S. companies, the Bechtel types to take a look at the potential of hydroelectrical which, of course, therefore reduces dependence on other forms of energy?

Mr. HUMPHREY. Thank you, Mr. Payne. Yes, we have. In fact, just January AES Corporation headquartered right here in Virginia signed an agreement with the government of Uganda to move forward with a major hydroelectric facility.

We support hydroelectric facilities. One of the concerns we have is that they are very capital intensive. Additionally, one of the things that we need to work with our African colleagues on is integration. In the past, we have had a number of hydroelectric plants built in Africa, but there has become a debt problem for the government. One of the reasons, because there was not regional integration. The amount of power that it is producing is not cost effective unless you can reach it out and deliver that power beyond the country's borders. This is one of the reasons while we are focusing on regional integration, working with SADC, working with ECOWAS, working with COMESA so that you maximize the efficiencies.

Additionally, we support hydroelectric plants, but one of the things that we want to caution about is that we do not want to see you just going totally to hydroelectric because if a drought comes, now you have created a real extensive problem. Just as we need to diversify our sources, we want our African colleagues to diversify their sources. But hydroelectricity has a tremendous application and tremendous potential throughout Africa.

Mr. PAYNE. Thank you, as a matter of fact, I think your statement is really on target because I think, Mr. Campbell and I, on one of our visits to Ghana there was a U.S. aluminum plant, I believe, that built many years a hydroelectrical plant and of course they got about 80 percent of the energy and the country got the other 20 percent. But be that as it may the drought then has created a real problem for energy at that point now and I think we sent several generating barges to that region because of the inability to have sustainable energy.

Energy is so important in trade and in investment. If companies are going to have computers running, if they are going to have refrigeration for products and all that, there really needs to be that sustainable energy, dependable energy and the practices, for example, I might ask you this question about Sudan. I have a hundred of them, but the red light is going to go on in a minute. The Talisman Company is a Canadian based, but Chinese and Malaysian and we have moved in our State of New Jersey, I did get the State to divest 850,000 shares. I got a letter from the Governor's office just several seeks ago because Talisman's investment in Sudan, Sudan supports slavery, bombs its people in the south, uses torture and other things and are we—what is our policy toward oil from Sudan and whether it can be segregated out well enough to seek that we are not involved with it?

Mr. HUMPHREY. Thank you, Mr. Payne. Our sanctions policy toward Sudan dictates that we are to have no trade whatsoever with Sudan. There are to be no materials, oil, gas. They also have the capability to produce gas, coming from Sudan to the United States, nor is there any technologies that would support those industries, supposed to be coming from the United States going into Sudan.

So our sanctions are fairly carte blanche and we would hope that we are doing an effective job of monitoring to insure that that oil or that gas coming out of Sudan is No. 1, definitely not making it into the U.S. markets for the very reasons that you stated.

Mr. PAYNE. Our time is up, but I would just like to just mention that hopefully the Libyan change could not only for energy, but if Libya can become a productive country in Africa, as you know many of the African states have positive relations with Libya. Sometimes when developments start, can start of our Libya, that energy can be changed into a positive area, then I think that will have an impact on sub-Saharan Africa and some of the problems that it faces.

Iran, there seems to be a changing of a policy and that may also bring some more oil to the table, but just my last quick question is that these energy projects are so capital intensive, hydroelectrical dams, you talk about Chevron, $12 billion, you mentioned somebody else putting $3.5 billion and it is such a large industry that does the Department of Energy have any kind of policy?

I know the Congress has a policy of attempting to encourage our agencies to use small and disadvantaged businesses and with such a large capital intensive, it would certainly be difficult for minority business people to jump in and put bids and proposals out for some of these potential projects. But does the Energy Department talk to the Chevrons who incidentally have a bad record anyway in Nigeria under the past regime, maybe they would be interested in trying to clean up their act. But are there any kind of initiatives taken by the Department of Energy? I think that the Congress still would like to encourage diversity. What are you all doing in your Department?

Mr. HUMPHREY. Mr. Payne, those programs are run out of the Office of Economic Impact and Diversity. However, I can tell you first and foremost my personal commitment to ensuring diversity. There is a mentor protegee program that is operated domestically where we try to team small disadvantaged businesses in the U.S. as well as businesses from Africa with some of the major multinational corporations here in the United States. We are committed to seeing what we can do to take that program internationally, to see what we can do in working with some of the multinational corporations here in the U.S. teaming them with some of the small disadvantaged women-owned biosciences so that they can have opportunities in Africa too.

One of the beauties that we see in that is that in many instances because of the size of some of the countries in Africa, it is not economically feasible for the multi-nationals to go in and invest the large resources that they have. But for some of the small businesses, it becomes very, very profitable and they have the technology. So we are hoping to expand that program internationally to take the lessons and the skills that the multinationals have and see if they will mentor and protegee some of the very, very qualified and very technically sound competent small disadvantaged and women-owned businesses in the U.S.

Mr. PAYNE. Thank you.

Mr. HUMPHREY. Thank you, Mr. Payne.

Mr. ROYCE. Mr. Campbell.

Mr. CAMPBELL. Thank you, Mr. Chairman, for holding the hearings. Thank you, Secretary Humphrey for your helpful testimony. I want to ask you about Ethiopia and the Blue Nile. Here is what I know and I would love to hear encouragement, but I would certainly like to have enlightenment, short of encouragement.

Blue Nile rises from Tata, runs through this deep gorge, then winds its way, of course, up through the Sudan and eventually joins the White Nile at Khartoum. Up in Egypt the Nile is dammed at Aswan and creates this huge shallow lake, Lake Nasser and evaporation is extreme. If you took the same cubic feet from Lake Nasser and instead put it behind a dam in the Blue Nile Gorge in Ethiopia, you would be able to supply Ethiopia with water to guarantee no drought ever again, purely from the evaporation savings, if you follow me, so that there is no diminution in downstream supply. Now all that is missing is the cost of a dam on the Blue Nile in Ethiopia. The will of the well to do nations to assist Ethiopia in doing so. If I have my facts wrong, I stand ready to be corrected. That is what I said about enlightenment, but I am prepared to be encouraged to hear from you that this is something the Administration looks with favor upon. How is that for a leading question?

Mr. HUMPHREY. That is a very good leading question. I just hope I do not strike out on it. No, I cannot provide you any additional facts that might enlighten you, but let me try to respond this way.

One of the things that we have found that we need to do is educate some of the businesses in the United States about some of the tremendous opportunities in Africa. One of the things that we do is we hold a quarterly industry dialogue where we invite representatives from a variety of industries, energy industries, oil, gas, renewable, efficiencies and we dialogue with them and tell them what we are doing, what opportunities that we see available, places they may want to look. We also work with our African colleagues to encourage them to No. 1, put in an investment, friendly climate. That is central and that is integral.

What we can do is take your idea. We will vet it throughout the Department. We can certainly discuss this with our Ethiopian colleagues, but also make it known to the private sector what these opportunities are because there really is a gap.

Mr. CAMPBELL. Let me jump in again, if I may, and I do understand. You are a master of so much. If you just do not have at present these facts, I would be delighted if you would pursue it. So that is a perfectly OK answer with me. But from my limited knowledge what is lacking is not the interest of the private sector. What is lacking is the World Bank willingness to finance it and that is because the United States is not prepared to back it at the World Bank and the reason is because nobody bucks Egypt when it comes to the Nile. So I am putting a fine point on it now. I believe that the problem is not addressable by the information services much as I value them and I grant that you are great to be developing them. The problem is will in this or previous Administrations, Democrat or Republican, to go to the World Bank and support Ethiopia in this request.

On that subject, do you have any information?

Mr. HUMPHREY. I do not have any information and with your permission I would like to get back to you.

Mr. CAMPBELL. Would you be so kind. Mr. Chairman, I would like to use this opportunity to ask Secretary Humphrey to push this upward in the Energy Department so that maybe there is some counter pressure to other Departments that might not be as interested in supporting it. May I make that request?

Mr. ROYCE. You certainly may, Mr. Campbell. Assistant Secretary, if you would respond in writing to Congressman Campbell that would be most appreciated, the position of the Department.

Mr. CAMPBELL. And I would conclude by saying—I addressed it in the question of availability of water, but it would fall under your bailiwick because the hydroelectric potential is magnificent as well, as you might guess.

The key point that I would make is it is a huge environmental savings. It is no threat to the downstream water users because of the tradeoff in evaporation. All that is missing is the courage to stand in the World Bank, at least in my humble opinion, so thank you for giving me the chance to put that question to you and if you send that to our former colleague, Mr. Richardson, I would be delighted to support his efforts in any way.

Mr. HUMPHREY. Will do and we will definitely get back to you.

Mr. ROYCE. Congresswoman Barbara Lee.

Ms. LEE. Thank you very much, Mr. Chairman, and I was very pleased, Mr. Humphrey to hear you talk about the advocacy which you have for the mentor protegee minority owned business owned program.

Let me just ask you with regard to helping minority and women owned businesses getting established in the energy industry. Many of our businesses are transitioning from 8A program in one sector and want to diversify and want to move into other industries and given the fact that unless you are really teamed with a major oil company in the energy business you have little likelihood of being successful. So for those companies does the mentor protegee program specifically address those companies which want to diversify or are you focusing mainly on those companies, those few companies, really that have the capacity already?

Mr. HUMPHREY. Thank you, Congresswoman. No, we are focusing on all of the companies. We realize that it would be very, very limited and, quite frankly, arguably the success would be doomed from the start if we just looked at those small disadvantaged minority, women owned businesses with energy expertise, because they are few. But there are a lot of companies out there that have tremendous technical capabilities that are easily transitional to the energy sector. We have done this truly in the gas sector here domestically. We have a WAMBE, Woman and Minority Business Enterprise that they protegee and mentor with multi-national corporations. We are going to be talking to the multinational corporations about extending this. As you go into Africa, take some of these small businesses, take some of these minority businesses, take some of these women owned businesses, mentor them, be a protegee to them and let us see what we can do to increase opportunities because as Africa as we developed its energy infrastructure, tremendous commercial opportunities exist. After all, the one common denominator for every advanced society is a well built energy infrastructure. That is the one common denominator.

Ms. LEE. Thank you very much. Mr. Chairman, let me just ask if it is possible that we could get a little bit more information on this? I would like to share it with my colleagues, especially those in the Women's Caucus and the Congressional Black Caucus and Hispanic Caucus so we can really get a handle on this because it sounds very exciting to us and we would like to get the word out.

Let me ask you with regard to the war in Angola and Unita. How is the war affecting the United States from tapping fully into Angola's oil reserves at this point?

Mr. HUMPHREY. One of the ways that it certainly is affecting the U.S. and tapping into its complete oil capabilities gets back into the infrastructure, the business climate, what type of investment climate do you have? Because of the war, a number of investors view that as a tremendous high risk, that maybe because of the amount of money that they are willing to invest, the war and the occasional sabotage that occurs and the loss of life. It is not worth the risk.

What we need to do and what we are doing is we are working very, very closely with the government. The government, in fact, has begun to take some initiative. They have agreed to elections, I believe in 2001. They are making fundamental changes in their constitution. They are making economic changes. They have agreed in their budget, in their fiscal budget to begin to look at social programs, to address some of those issues. But in large part, yes, it is having an impact and until we can bring peace and democracy, you never will realize its true potential.

More so, we do not know what may exist in some of those territories that are controlled by Unita, that at this point the possibility of exploration does not exist. So until we can get into those areas, until we have peace in Angola, it will be difficult for Angola to realize its true potential.

Ms. LEE. What percentage of oil comes from Angola?

Mr. HUMPHREY. I would have to check that.

Ms. LEE. Do you know approximately?

Mr. HUMPHREY. Last year it was 4 percent of the U.S. total imports.

Mr. ROYCE. But in the next 10 years it is expected to anticipate potentially Nigeria, so it has tremendous potential.

Ms. LEE. You said 4 percent Angola.

Mr. HUMPHREY. At the present time.

Ms. LEE. Present time, OK, but in the next 10 years we expect it to surpass Nigeria?

Mr. HUMPHREY. Nigeria's production. So it could be 8 percent.

One of the things is that Nigeria has so much potential in the gas sector and natural gas is the fastest growing source in the world and certainly as we indicated with the West Africa gas pipeline, Nigeria is now reducing the amount of flaring that they are doing in the oil to recapture some of that gas. Gas is going to take on, we believe, a larger percentage of the energy resources that Nigeria produces, but again, if we can get that investment climate, if we can end the war, and we also have to get rid of those mines, just ending the war and getting the investment climate, we do not know, Angola is one of the most heavily mined countries in the world. Until we can address those issues and really get out there and have some exploration from our private sector companies, Angola will never truly realize its potential.

We do not know how much they can do, but we know they can do more.

Ms. LEE. Thank you very much.

Mr. HUMPHREY. Thank you.

Mr. ROYCE. Mr. Meeks.

Mr. MEEKS. Thank you, Mr. Chairman. Mr. Secretary, I apologize for not being here for the beginning of your remarks and I hope that the questions that I have you did not—I am not asking repetitive questions, but in light of the situation in Angola, I do not think it is by accident, for example, that we are having this hearing. I thank Mr. Chairman for it, because of what is going on this country now. Recently when Secretary Richardson was before us one of the questions that I asked him at that time was have we explored other nations that are not a part of OPEC in getting them to increase their pumping out of oil and he said he had.

In looking at Africa, not only Nigeria, but Angola and it looks like it has a chance to pump out more and you hear about Tanzania and Sudan and Somalia, Madagascar, I think that it has an opportunity to change. How even we look at Africa period with reference to our own interest dealing with petroleum.

So I am wondering if we are looking at a general policy that will basically give OPEC some competition coming straight out I think OPEC does 40 percent of the oil now so therefore that leaves another 60 percent that is needed and there is no real competition where the continent of Africa can form that kind of competition. I am wondering if there is a general policy that the Department of Energy is looking at so that we can fortify, in essence, some of the economies in Africa, but as well as make sure there is some competition to OPEC.

Mr. HUMPHREY. Thank you, Mr. Meeks. The general policy, what we are trying to do is first and foremost develop the energy infrastructure of the countries of Africa and that includes if they have resources, whether it is oil or whether it is gas, we want to fully develop that.

We also realize that if they have those resources that exporting those resources is the one sure fire way they have of gaining access to hard currencies which can make a difference in the lives of their people.

Secretary Richardson has been talking to a number of leaders around the world, including Africa, who are not members of OPEC, but who have the capabilities to produce oil. We think that this is also critical because it is a national security issue. We have to have a diverse supply of energy. We really learned a harsh lesson back in the 1970's when we were just totally dependent on energy supplies from the Middle East and it was stopped. We cannot afford to have that again. It is in our interest to have the diversity of energy supplies. It is in our national security interests, but it is also in the interests of the Africa countries.

One of the interesting facts is that we always talk about trade and energy between the United States or Western Europe and Africa. It is interesting that there is a tremendous opportunity for trade and energy amongst the African countries. They are not doing that, but this again, trading energy, gives them badly needed resources to develop their country. But yes, we are looking at as a general policy enhancing their capabilities and that gets toward again, I know I have said it once and I keep saying it because it is key, putting in an infrastructure that is investment friendly, sanctity of contracts, transparencies, streamlined bidding process, because companies are interested in Africa because it is one of the last great markets and to date, we do not really know what its true potential is. We only know that it has a tremendous potential.

Mr. MEEKS. We know that there are new oil discoveries and they are continuing to be found off the West Coast—in the West of Africa. Are our companies, are American companies involved with these new discoveries? What are they doing? Are they around? I know the French is looking. What are we doing as to these new discoveries?

Mr. HUMPHREY. A number of U.S. companies are heavily involved throughout Africa, not just West, but Central and East as well and a number of exploration contracts have been signed. There is some exploration going on in Uganda because carbon deposits have been located in Uganda. In Tanzania. Some more going on in Botswana. So yes, a number of U.S. companies are heavily involved in these exploration activities. I could not give you a definitive number to categorize what the totality of the investment dollars are, but I can assure you there are a number of U.S. companies involved and continuing to get involved.

Mr. MEEKS. Let just ask a last question and it deals with Equatorial Guinea where we know that there has been, their elections are just passed, there has been some questions of fraud, etcetera, but there also has been some new found oil there. I am wondering how would you see, or how do you see this new discovery. Is it going to help the government? Is it going to help some of the human rights issues and questions that are there with this new found wealth that the country now has because I know most of the people live in poverty. How do you see it making a difference and are we involved or any of the U.S. companies involved with discoveries there?

Mr. HUMPHREY. Thank you, first and foremost it has the capability of making a difference in the lives of the Equatorial Guineans. We had the pleasure of meeting with the Minister of Energy from Equatorial Guinea and his delegation when he was in Tucson. We had bilateral discussions with him as well.

One of the keys is the government of the Equatorial Guinea themselves, whether or not they are going to hold true and take whatever resources that they get from these discoveries and invest them in the citizens, invest them in the islands or as we have seen in some countries in the past when corruption comes in, these resources never make it to the people and benefit the people. So we are working with the government of Equatorial Guinea to make certain that there is investment in the human capital of their country that goes along with investment in the resource capital.

Yes, U.S. firms are involved and there is tremendous, tremendous opportunities there in Equatorial Guinea and we can hope and we will continue to push that there be some fair distribution of resources, that it gets back to the communities, to the people so that these assets are not just taken out of the shores of Equatorial Guinea and shipped somewhere to Western Europe, but there is a corresponding commitment to the people.

Mr. MEEKS. Thank you.

Mr. HUMPHREY. Thank you.

Mr. ROYCE. Assistant Secretary Humphrey, we want to thank you very much for your testimony today.

Mr. HUMPHREY. Thank you, Mr. Royce.

Mr. ROYCE. And Mr. Payne has a question for you.

Mr. PAYNE. Not a question, just a statement. Tell the Secretary of Energy that if he is going to have another ministerial meeting of African ministers of energy that I know he likes Tucson, Arizona and the West, but we do want those African ministers to know that there are other people around too, so tell him he can come to New York, Atlanta, New Orleans, Los Angeles.

Mr. ROYCE. Let the record show that Newark, New Jersey——

Mr. PAYNE. Mr. Chairman, the record might show that, but having spent many, many years on the Hill, I know the power of the gavel, so California looks pretty good to me.

Mr. ROYCE. Again, thanks for your testimony.

Mr. HUMPHREY. Thank you, Mr. Chairman, thank you, Members.

Mr. ROYCE. Before we go to our last panel I would just like to note that we have a statement from the Chevron Corporation and without objection it will be submitted for the record and now we will turn to our second panel.

I am going to ask Mr. J. Robinson West, Mr. Robin West, Chairman of the Board and founder of the Petroleum Finance Company to come forward. He advises Chief Executives of leading international and national oil companies on corporate and international gas and power strategy, on acquisitions and on investor relations. Mr. West received his undergraduate at University of North Carolina at Chapel Hill and a J.D. at Temple University. Mr. West is a member of the Pennsylvania Bar. Prior to founding the Petroleum Finance Corporation in 1984, Mr. West served in the Reagan Administration as Assistant Secretary of the Interior for Policy, Budget and Administration. Between 1977 and 1980 he was the first Vice President of Blithe, Eastman, Dillan and Company, an investment banking firm and Mr. West served in the Ford Administration as the Deputy Assistant Secretary of Defense for International Economic Affairs and on the White House staff from 1974 to 1976.

We thank you for joining us today, Mr. West. If you could proceed with your testimony and if you want to abbreviate and just—we have got your written testimony for the record.

STATEMENT OF J. ROBINSON WEST, CHAIRMAN, THE PETROLEUM FINANCE COMPANY

Mr. WEST. Mr. Chairman, what I would like to do with your permission is to go through some of these slides quite quickly. I do not work from written testimony generally, I work from slides.

A couple of points on West Africa which is what I want to talk about, not all of Africa. The first point is that there is a lot of discussion about oil in the Middle East and oil in the Caspian, but the fact of the matter is that West Africa is very, very significant to world oil markets for several reasons. First, as one of my slides will show, there is a lot more oil in West Africa than there is in the Caspian. Also there is a long history of industry investment in West Africa. In the Middle East, there is a lot more oil, but there is very little access on the part of the industry to the Middle East. West Africa is an area of enormous importance to the industry.

Second, the kind of crude oil that comes from West Africa is different than from many other places. It is light, sweet crude and is among the most widely traded crude oils in the world. So West Africa, even though you do not hear too much about it in public, it is very important to the industry.

Can we have the first slide? Why is it that Africa is attracting so much interest right now to the industry now? First, a lot of big discoveries made possible by new technology, breakthrough technologies in ultra-deep water. There are enormous reserves that are being discovered, totalling in excess of 5 billion barrels. The governments, the host countries such as Nigeria and Angola, Equatorial Guinea, and others, need the revenues. The government's track record with foreign oil companies over time is very good. For companies that know how to deal with the governments, they know how to manage the risk. So West Africa is an area of great importance to the industry.

The second slide I think is important to keep in mind too in terms of reserves and production. You will see that West Africa has more oil than say Europe, United States, less than Russia, but a great deal more than Central Asia. The other point, however, is that you will see the rate of production that oil is produced at a much lower production rate, given the reserves, than for example, in Europe and the United States. So that we believe there is a lot of prospectivity and that production is going to increase a great deal.

Mr. ROYCE. If I could stop you, is there a graph of the Persian Gulf in there?

Mr. WEST. No, it is not on here.

Mr. ROYCE. What would it be in billion barrels?

Mr. WEST. It would be hundreds of billions of barrels.

Mr. ROYCE. Hundreds of billions.

Mr. WEST. But remember from the standpoint of the industry, (a) there is no industry access in Saudi Arabia, virtually none in Kuwait. In Iran, it is very modest. It does not exist in Iraq, Qatari, Abu Dhabi, Dubai, and Oman is really in the only Gulf places where there is any access. So it is important—it is a unique role that Africa plays.

If I could go to the next slide, it is also important to remember that there is oil production in other places in places other than Nigeria and Angola that includes the Congo, Equatorial Guinea, Gabon and Cameroon. This gives you the idea of not only the production, but also the expected production. These are based on our estimates.

Going to the next slide, there was—some discussion here about volumes. These are our estimates of the impact of deep water developments in both Angola and in Nigeria. You will see that in the year 1999 that there is about—Angola is producing approximately

600,000 barrels of oil per day. This is going to rise very substantially. It will more than double by 2010. Nigeria is producing close to 2 million barrels and this is going to rise very substantially also, close to 3 million barrels. The question which was asked about on-shore production. If the situation in Nigeria clears up and it is stable, that we estimate there will be another 400,000 barrels of production of oil that would come from on-shore production. Likewise, in Angola, nobody really has any idea. It is largely unexplored. It is physically dangerous. There are a lot of mines. Oil production in Angola began on-shore, but there is very modest.

The next slide is oil investment needed to lift per capital GDP. As we will show in later slides, oil is very, very important to the economies of this country. PPP is Purchasing Power Per Capital. This is not Purchasing Power for GDP. We have adjusted it so the number comes out a little more than it would if it was flat GDP. But what is really quite striking is if you take the surge in production in Angola that we anticipate and you take the population of Angola which is about 12 million which is relatively small, is that the ground oil production can transform Angola. If the war can end, Angola can become a very vital, strong country, a really unique country in West Africa.

If you go to the next slide, again, we see production surging and the yellow here is the potential from ultra-deep water. At this point are just estimates.

The next slide is to give you an idea of other heavily populated oil producing countries such as Algeria and Indonesia. What you see is that Nigeria and Angola are going to take a much more important role, that they are going to take a bigger place at the table in the international oil business.

The challenges ahead for the governments of West Africa, are that they need to create a secure environment for foreign investment. They must build strong political institutions. They have got to create the necessary conditions for sustained economic growth and development. For the industry to invest as Deputy Assistant Secretary Humphrey pointed out, there has got to be a legal infrastructure on which the capital can flow and we are talking about enormous amounts of capital.

Where is this money going to come from? There is really only one place it can come from. It can only come from the international companies. This shows the balance sheet of the industry. On the bottom axis is the credit rating. On the vertical axis is the reserves. You can see that governments have a lot of oil, but the high credit ratings, they come from the international companies. So the only way that the potential of West Africa is going to be unlocked is in partnership with these companies that have strong balance sheets.

In terms of competition in West Africa, the governments are going to need the balance sheet and the technology of the big companies, but the industry is restructuring and this could affect West Africa. However, that being said, there are a number of very large, strong companies such as Chevron and Exxon Mobil which are interested in West Africa. There is high above-ground risk, political problems however, as well as increasing operational costs, particularly on-shore in both Nigeria and Angola.

Big ticket, major capital projects, this is really a business only for very large companies which is too bad. If you have smaller companies, then more prospects will be developed. If peace can come to Angola and stability can come to Nigeria, you will see a lot more competition.

The question was asked are American companies involved? You can see that Exxon which had no deep water licenses in 1991, now has 21 in 1999. It is a very, very important part of Exxon Mobil's future. They have invested and they have more than $10 billion of capital exposed.

Likewise, in the next slide if you look at Chevron in West Africa and its role in West Africa, the graph on the left is reserves and production in 1998. You can see that Chevron has reserves of a little under 1.5 billion barrels in Net production to the company, is a little over 100,000 barrels. But if you look on the other axis you can see that the vertical axis is production cost and the horizontal axis is net income per barrel. Are people making money in West Africa? The answer is yes. So that West Africa is a very important part of companies' portfolios. They have a very good relationship and it is mutually beneficial to both countries.

Now if you look at the economies of these countries, it is pretty sobering. Oil has a key role to play. If you look at trends in fiscal accounts, the blue line is revenues, the red line is expenditures and the green bar is the difference. You can see that Angola is permanently running deficits. Where does the money come from? To a large extent oil. You can see it fell in 1998, which was just a function of price. The other source is primarily diamonds. You look at the composition of expenditures, you can see that defense and interest expenses are important parts. I should point out that the chart begins at 40 percent, so it is not quite as bad as it looks. But you can see that they have got very, substantial structural problems in the Angolan economy. The only way out of this is going to be oil. You can see that crude exports represent a vast preponderance of the foreign exchange reserves and that oil investment is critical to the country's economy going forward.

For Angola, the need for oil sector revenues will increase with growing budget requirements. The oil business has got to be encouraged in Angola and Angola has got to encourage the oil business, but this is a partnership that I think both the companies and the country are eager to encourage.

Finally, in terms of Nigeria, if you look at the economy as a whole you will see that the blue line, which crashes in 1998, again is a function of price. This is an economy that is entirely leveraged to oil, when oil goes down, everything else goes down.

I would like to go to the next slide which shows that petroleum is the key to stabilizing finances. Again, the gray is expenditures. The blue is revenue. The red line is WTI which is the price of crude oil and the black is the balance. You can see that when oil prices go up, generally the government can run a balanced budget, but when oil prices fall, the government goes substantially into deficit.

The last chart, I think is quite important here and that is the balance of payments, the real money in Nigeria. You can see that you have got foreign investment is gray and other flows which is really flight capital and if you look at the red line, you can see when oil prices were high, the blue line went up substantially. That means the money moved out of the country. This is an unsustainable situation for the Nigerian economy.

Debt rescheduling relief will be insufficient to solve Nigeria's balance of payments problems. That is not enough. That being said, that rescheduling is very important to it.

So in conclusion, we believe that the outlook in Nigeria there is a new political structure. The old tensions are a problem, but the energy sector remains the main economic driver and really the critical source for foreign investment.

The other question, Mr. Chairman, if you want me to go into briefly on gas, what I would really like to do is simply say if you look at the gas, go to the second chart here, what you will see is with growing production there has been an effort to utilize the flared gas. Shell has an LNG plant, Chevron is in gas to liquids and the West African gas program, but the problem of production is growing. They are absorbing, in effect, the existing gas, but as production grows more gas will be available and this is a very, very difficult challenge for them to manage.

I conclude there.[The statement of Mr. West appears in the appendix.]

Mr. ROYCE. Thank you for a very excellent presentation. I am going to make a copy of your notes there and send that to the Members.

Let me ask you about a question concerning China. Angola and China recently signed a letter of intent on joint construction of a refinery. The China National Petroleum Corporation also involved a controversial operation in Sudan. Is China involved in any other African nations' energy sector and how should we view China's energy activities in Africa, in your view?

Mr. WEST. I do not think they are involved in any significant activities in Africa at this point. They are, for example, in Khazakstan. They have a significant investment. The Chinese are in the process of floating Petro China, a new part of their national oil company. China is very concerned about energy demand. If their economy is to grow they are going to have to import more and more energy. Again, one of the key factors, to remember about Africa is that it produces light, sweet crude and this requires the least investment in refineries. This is the best kind of crude you can get and a lot of the crude from West Africa flows into the Asian market including China. So I think the Chinese are going to be watching Africa, but they are watching the whole world and this is one of the areas where their economy is going to move.

Mr. ROYCE. Let me ask you about Elf Aquitaine, if I could. They have been reviewed traditionally as a tool of foreign policy for France in Africa. Elf has been identified by press accounts as having played a major role in the overthrow of Congo Brassaville's government a few years ago. Going back 30 years in support of the Biafran secessionist movement in Nigeria which led to civil war in Nigeria, Elf recently merged with the French oil company, Total Fina, and how do you see the new Elf Total Fina acting in Africa? Do you think the company's business practices in Africa are going to differ from the practices of American oil companies in Africa?

Mr. WEST. I think there are really two questions. One, will Elf change its behavior now that it is part of Total? I think there has been a huge series of scandals, some of the most significant figures in France in the last 10 years have been dragged into this. Chancellor Kohl in Germany was involved in what was known as L'Affaire Elf. That being said, I think that the management of Total is not interested in being a political pawn as they used to be.

By the same token, Total has demonstrated its move into Myanmar. It moved behind Conoco in Iran. They play by different rules. It is perfectly legal, but it is by different rules and they do it quite publicly. The old Elf did a lot of things under the table.

Mr. ROYCE. In your presentation you state that the governments in West Africa need to create a secure environment for foreign investment. What are the specific challenges for these governments and how much progress has been made over the last several years?

Mr. WEST. If I may say I think that to increase investment you do need a secure environment, particularly in the gas business. The gas business is entirely different than the oil business. People have to (a) be able to pay for the gas. There has to be a market for the gas. Oil can be exported, and given its physical characteristics, it can be moved all over the world. Gas cannot. So there has got to be a legal regime, you have got to be able to know how it is going to work. You have got to have contracts which obligate the buyer. You have to know you are going to get paid real money for it.

But that being said I think I should point out that the competition between the major oil companies to compete in West Africa in deep water off-shore Nigeria and Angola is intense. If, you look, for example, at government revenues in Angola, the foreign investment is largely bonus bids from the oil companies. In terms of the oil business, there is a pretty secure, substantial course of dealing right now. It is more risky, when you get either on-shore or in gas, then there are substantial problems, commercial and physical security.

Mr. ROYCE. I want to thank you, Mr. West, for your testimony and fine presentation. I am going to turn over the chairing of the Committee at this time to Mr. Payne who will continue because I have another appointment. So thank you very much.

Mr. PAYNE. [Presiding] Thank you very much, Mr. Chairman. Let me thank you for calling this very important meeting. I think there is going to be a vote in about 10 to 12 minutes also, so we might try to speed through.

I really appreciate your comments and we are talking about trying to increase the production in Nigeria. I think one of the problems when you find oil is that everybody just wants the oil to be the answer. Other sectors that could, be the answer, such as agriculture, and other kinds of industries that could really move forward are forgotten and everybody is depending simply on the oil, and I know your country is only interested in oil, but is there any discussion ever to when you are just giving advice that it is all right to get all the oil you can, but like Nigeria is a great example, import, vegetables. I mean it makes no sense. It is one of the most fertile countries in the world and so do you feel that is the responsibility of your people or that is out of your hands?

Mr. WEST. I think a lot of people who look at the oil industry now recognize that oil can be both a blessing and a curse for a country for exactly what you are saying, that it is easy money and it is controlled often by governments. I have often heard the formula for corruption is if you have power without accountability equals corruption. In the oil sector that happens. I think that if you look now that the way the oil companies operated even 10 years ago and the way they operate now that they are spending more and more money.

I think you have to be realistic. A place like Nigeria is a huge country and to ask the oil companies to bear the burden on all of this is simply unrealistic. Can they be good partners? Are there ways they can be imaginative? Oil companies have—they do not have just big balance sheets. They have access. They have some very talented people and I would encourage them to try and build that human capital. I think the next generation of oil executives really are trying to do that. In the past, they did not, but the spirit of what you are saying I agree with. I think one has to be realistic as to just how much they can do.

Mr. PAYNE. Right, as has been mentioned, you have heard me mention Chevron before, when they were involved in Nigeria with the former dictator, of course, they have been improving since that. Shell years ago, Elf, Talisman, now. Let me just, I guess time is going to run out. So I will just ask about the question of——

Mr. WEST. Can I make one point?

Mr. PAYNE. Sure, go right ahead.

Mr. WEST. You mentioned Chevron. I believe there is a hospital in Angola Chevron has rebuilt three different times. I mean you have got to be fair to these guys. They have made some not insignificant investments here.

Mr. PAYNE. Yes, that is true. I have heard about that hospital. One of the other things though we need to deal with and that is once again some organizations are now taking, looking at them, but this question about transparency. There is a lot of corruption and usually the corrupted is the one that gets all of the bad publicity, but you have to—I do not know if there is such a word, but you have to have a corrupter, you know or a corruptees or corrupt whatever. The ones who are doing the corrupting, and when do we start to seriously not only in this industry, but all the rest, when we do start seriously talking about the wasted money when as a matter of fact in Germany it is a tax deductible item. You just put down how much graft you paid and it goes in the whole business account. Others are not as blatant but it is understood practice.

How do we ever change that cycle of corruption from the western countries that are offering the money and then so that it can filter down to some of these very poor countries that it is very enticing when these offers are made?

Mr. WEST. Mr. Payne, I agree entirely. I think corruption is a terrible blight. I think in fairness to American companies now, large international American companies are extremely sensitive to this issue and they just do not do it.

Now if money is stolen from the government once the money is received that is beyond the control of the government, excuse me, of the company.

Mr. PAYNE. Right.

Mr. WEST. I think that the big international companies are very sensitive to this because they realize that the board and management can be criminally liable and they are very sensitive about going to jail.

I think the question is whether other countries play by our roles and the answer is they do not and I think there are efforts now to try and impose our standards on other countries and companies of those countries. I personally, I think this is going to happen over time. I think American companies deserve some credit because American companies at times have had to leave the table, if there is the perception or looks like corruption, they just will not go near it now and I think it is wise.

Mr. PAYNE. I agree and I am going to yield to my colleagues. It is being discussed now I think in the European Parliament when they were here a year or so ago, meeting in the U.S. I raised the question and I do not know if they are going to invite me to their meeting in Europe, but we did raise the question that this corruption of these countries have to be addressed and there is this transparency, international and others that are doing that.

Let me yield to Ms. Lee from California. She has questions.

Ms. LEE. Thank you very much. Let me just ask you in terms of the environmental consequences of oil production, how do you advise your companies with regard to the responsibility that oil companies have in terms of environmental degradation? For instance, look at Nigeria in the Delta region. Specifically, the initiatives that were or are being developed now to address that and what could have prevented that, if anything, based on how you see corporate, U.S. corporate responsibility in this area?

Mr. WEST. I think that there are really two questions. The question is in terms of new projects and projects going forward, one executive was asked how do you, if there are not environmental laws in a country, what standard do you apply? He said we apply the same standards we do in the United States. They recognize—there is a cost of doing business around the world as a world class company and they simply have to play in a certain league.

So going forward, I think you will find and in recent years, the equipment is state-of-the-art and they do not cut corners.

Where life gets complicated is in the historic projects and things like the Delta and you have situations where the companies can argue, look, we met our legal standards in these countries which they usually did, but the standard either was so low or nonexistent and I think it is a problem that people have got to kind of work together. There is no obvious answer and it is a gray area. I think companies recognize they have responsibility, but the countries do too and find a way that you can do it on the most efficient least cost basis and in some place like the Delta the cleaning up the environment is a visible sign, and outward and visible sign of a lot of other problems and it is not a discrete problem.

Ms. LEE. Thank you very much.

Mr. PAYNE. Thank you. The gentleman from New York?

Mr. MEEKS. Thank you, Mr. Chair. Let me just ask a quick question. The African Growth and Opportunity Act is something that once passed, it increased incentive for our companies to do investment in Africa. I am just wondering and curious, your opinion. Do you think that the passage of that bill will give incentives to U.S. companies to invest in Africa's energy infrastructure?

Mr. WEST. Yes, I think, you put your finger on the right word. Invest in the energy infrastructure. I think in terms of these enormous oil and gas projects, I do not think it makes much difference, the investment was taking place, the structure was in place. They know how to do it. I think in terms of power projects and gas and it is the infrastructure within the countries, I do think it can make a difference.

Mr. MEEKS. I yield back to the Chair.

Mr. PAYNE. All right, thank you very much. Thank you very much, Mr. West and to Mr. Humphrey for that very important testimony. We appreciate we know we have a lot of work to do, but we will move on. I do not want to get too used to this gavel, but at this time the meeting is adjourned.

Thank you.

[Whereupon, at 3:43 p.m., the Subcommittee was adjourned.]

A P P E N D I X

MARCH 16, 2000

U.S. House of Representatives

Subcommittee on Africa

255 Ford House Office Building, Washington, D.C. 20515

For Immediate Release
March 16, 2000

PRESS contact: Bryan Wilkes
(202) 225-4111

Statement of Chairman Ed Royce

"Africa's Energy Potential"

WASHINGTON, D.C. - - "Today the Subcommittee will look at the development and use of energy resources in Africa. This is an important issue. In order to improve the lives of their citizens, African nations need to develop affordable energy that is reliable and environmentally friendly. Some African countries are major exporters of energy resources, which brings them significant political and economic challenges.

"The democratically-elected Nigerian government of President Obasanjo, for example, is facing a very difficult challenge posed by Nigeria's production of over 2 million barrels of oil a day. To succeed with Nigeria's national revival, President Obasanjo must address legitimate grievances over revenue sharing and environmental policies -grievances ignored by the previous military regime-- while rejecting the small element of radicals in the oil-rich Delta region who are committed to violence and destruction and who have halted production on several occasions. Foreign oil and gas companies face their own task of being part of the solution in Nigeria and elsewhere in Africa. Energy development can also raise diplomatic questions. Many Americans are concerned that a Canadian oil company is helping Sudan's National Islamic Front regime to develop that war-torn country's oil sector.

"Energy revenue can be less than a blessing economy-wise. Academic studies suggest that an oil boom leads to a weaker performance in other sectors of an economy. Once a government feels flush, the pressure to reform is relieved, and the non-energy sectors of the economy wither. This is largely the Nigerian experience. New offshore production doubled Equatorial Guinea's GDP overnight. This small country must now successfully manage this boom. Other Africa countries confront similar economic and political challenges.

"Resource management issues are all the more pressing because Africa is developing an increasing amount of its energy resources. With technology allowing for ever deeper offshore drilling, West Africa is now considered to be one of the world's top regions for petroleum prospects. An American oil company recently made a billion barrel discovery off the Nigerian coast. Another company has announced a $8.5 billion investment in Nigeria, which is the largest industrial investment in the history of the continent. Meanwhile, interest in oil exploration is spreading to East Africa, including Tanzania, Madagascar, Somalia, Ethiopia and Eritrea.

"Africa has more energy resources than petroleum. Some 17 African countries hold potential as major natural gas producers. A liquefied natural gas plant off the Nigerian coast recently came on line. This is one of the biggest industrial projects in Africa. In the works for Nigeria is another project to supply natural gas to Ghana, Benin and Togo. Natural gas is increasingly seen as the energy of the future, being cleaner and cheaper than other energy resources. Developing Africa's natural gas should help African countries overcome their heavy dependence on the environmentally destructive practice of burning wood to produce energy. Africa's hydroelectric potential is nearly limitless. Congo alone has the potential to light up half the continent.

"The U.S. has a significant interest in Africa's energy development. Our country would be better off if African countries developed their economies while protecting the environment. We have an interest in seeing that energy resources do not fuel African conflicts. And we are major consumers of African-produced oil; some 15 percent of America's oil imports are from Africa. Given Africa's potential, this figure promises to grow. Analysts suggest that West Africa could soon rival the Persian Gulf in terms of strategic significance to America.

"The U.S. has an obvious interest in greater oil exploration and development in Africa, especially in light of the recent hike in prices Americans are paying at the pump. This interest gives us even more reason to be attentive to Africa's many energy challenges. Today the Subcommittee will hear from the U.S. Department of Energy, which is spearheading U.S. Government energy efforts in Africa, and a private witness, who will share their views on energy issues in Africa."

Statement of Calvin R. Humphrey
Principal Deputy Assistant Secretary for International Affairs
U.S. Department of Energy
before the
Subcommittee on Africa
Committee on International Relations
U.S. House of Representatives

Thursday, March 16, 2000

Opening

I am both pleased and honored to appear before you today to discuss the Department of Energy's strong commitment to promoting stability and achieving economic growth on the African continent through sustainable energy development. By promoting sustainable energy development in Africa, we strive to enhance Africa's economic and social development, alleviate poverty, improve health services, increase prosperity, and integrate African states into the world market.

To demonstrate this commitment, last year Secretary Richardson announced the African Energy Initiative at Howard University. Under the Initiative, the Department of Energy vigorously engages in bilateral and multilateral efforts to promote sustainable energy development and regional integration. Secretary Richardson's African Energy Initiative builds upon President Clinton's commitment to Africa and the Blueprint for U.S.-Africa Partnership. The Blueprint, as you know, was signed in Washington, in March 1999, and delineates a roadmap to promote democracy, good governance, human rights, trade and investment, and global integration.

In December 1999, Secretary Richardson hosted the U.S.-Africa Energy Ministers Conference in Tucson, Arizona. This Conference, a cornerstone of the Secretary's African Energy Initiative, represented the first time that Energy Ministers from Africa and the U.S. convened as a collective body to discuss the future of Africa's energy sector. The response was overwhelming. Representatives from 48 countries participated, including 41 Ministers. They expressed their desire to establish an on-going process and agreed to meet again in South Africa toward the end of this year.

Opportunity and Need

Africa is important to our country as a key source of diverse energy supply, as a market for energy goods and services, and as an opportunity for investment potential. Moreover, we want to ensure that we support efforts to improve the quality of life and promote political stability. With a population of approximately 785 million (13% of total world population) and an annual growth rate of about 20 million people per year, Africa will likely become the next important emerging market in trade and investment, energy resources and energy consumption. Energy will fuel the engine of economic change and sustainable economic development in Africa, key ingredients to peace in the continent.

Africa is the third largest oil exporter to the U.S. and plays an integral role in U.S. efforts to maintain a diversified oil import base. Last year, Africa exported to the U.S. approximately 1.5 million barrels of oil per day (bbl/d) or 15 percent of the total U.S. imports. Net oil imports from North Africa were 279 thousand bbl/d Sub-Saharan Africa provided 1.198-million bbl/d, which includes Nigeria at 651 thousand bbl/d, and Angola at 337 thousand bbl/d, among the ten largest sources for net oil imports into the United States. Particularly, Nigerian crudes are especially well suited for refining into gasoline and they are important to world gasoline supplies. Net oil imports from Gabon totaled 158 thousand bbl/d in 1999, making it the 14th largest supplier of imported oil.

Africa's current estimated proved reserves of oil are 74.9 billion barrels, down from the previous year's 75.4 billion barrels. The countries with the largest proven crude oil reserves are Libya (29.5 billion barrels), Nigeria (22.5 billion barrels), Algeria (9.2 billion barrels), and Angola (5.4 billion barrels). Africa also has abundant natural gas reserves. The continent's natural gas reserves are 394.2 trillion cubic feet (Tcf), up from the previous year's 361.1 Tcf. The countries with the largest gas reserves are Algeria with 159.7 Tcf, Nigeria with 124.0 Tcf , Libya with 46.4 Tcf, and Egypt with 35.2 Tcf.

In 1999, Algeria's oil and gas export revenues accounted for at least 90% of Algeria's total export revenues, and more than half of total fiscal revenues. The combination of sharply higher oil prices and moderately lower oil production since March 1999 has resulted in significantly higher oil export revenues for Algeria -- an estimated $6.5 billion in 1999, compared to $4.8 billion in 1998. Libya is expected to earn $11.7 billion from oil exports in 2000, up 59% from 1999 revenues and more than double 1998 earnings of $5.5 billion. Oil export revenues account for about 98% of Libya's hard currency earnings and half of fiscal receipts. Crude oil exports generate over 90% of Nigeria's foreign exchange earnings. Nigeria's crude oil export revenues are expected to increase by 54% in 2000, to $18.5 billion, compared to $12.0 billion in 1999 (and $8.6 billion in 1998).

Energy Consumption

Primary (commercial) energy consumption in Africa in 1998 was 11.74 quadrillion Btu (Canada's primary energy consumption in 1998 was 11.85 quadrillion Btu), which accounts for approximately 3% of the world's primary energy consumption. African primary energy consumption has increased by nearly 173% from 1980 to 1998 (from 6.79 to 11.74 quadrillion Btu). In 1998 the countries of South Africa, Egypt, Algeria, Nigeria and Libya accounted for 78% of Africa's primary energy consumption. Africa's primary energy consumption, excluding the top 5 consumers, was approximately equivalent to Belgium's primary energy consumption in 1998. (2.55 quadrillion Btu versus Belgium's 2.66 quadrillion Btu).

Commercial energy consumption in Africa is expected to remain constant as a small percentage (3%) of the world's total for the next 20 years. Through 2020, Africa's share of world oil consumption is projected to increase (to 4.3%), while the Africa's share of world natural gas and coal shares are forecast to decline. It is expected that world natural gas consumption will increase at a faster pace than Africa's natural gas consumption. Grid-connected renewables share is expected to increase slightly, from 1.4% in 1997 to 1.8% in 2020.

U.S. Investment in the African Energy Sector (Recent Developments)

Several U.S.-based firms have established a consortium and announced plans to expand existing investments in Africa's energy sectors. In May 1999, Chevron announced plans to invest $12 billion in its African operations over the next five years. Chevron is the project manager for the West African Gas Pipeline. The West African Gas Pipeline (WAGP) is a 520-mile gas transmission pipeline project designed to connect Nigeria's gas reserves to markets in Benin, Togo, and Ghana. The gas supplies from Nigeria will be used primarily to generate power for electricity generation, mineral processing, and other development which cannot be supplied by the existing Akosombo Dam. Absent any hitches, the WAGP could be operational as early as mid-2002, with construction costs estimated at $400 million. I traveled to Benin last year to give U.S. Government support by signing the pipeline agreement.

Exxon Mobil is leading the development of the Chad Export Project (CEP), a proposed $3.5 billion project to produce and transport 250,000 barrels of oil per day from southern Chad through neighboring Cameroon to the Atlantic coast for export to world markets, including the U.S.

Dallas-based Triton Energy 's Africa budget this year, approximately $191 million, is allocated to investment into the development of the Ceiba Field and continued exploration and appraisal activity on the company's licenses in Equatorial Guinea.

Ethiopia announced the signing of a $ 1.4 billion joint venture deal with U.S. firm Sicor to develop a huge gas field in the east of the country and build a pipeline and processing units. The joint venture, Gasoil Ethiopia Project (GEP), will develop fields in the Ogaden basin where 4 Tcf of gas and 13.6 million barrels of associated liquids were discovered in the 1970s. GEP plans to construct a 375-mile, 24-inch gas pipeline to transmit gas to the town of Awash, around 75 miles east of the capital Addis Ababa, on the country's main railway line and highway.

Enron, an oil and gas firm in Houston, has signed a power purchase agreement to supply emergency electricity to state-owned power utility Nigerian Electric Power Authority (NEPA) through 30MW power barges located on the coast of Lagos State. Enron and its Nigerian joint venture partner signed the $82 million deal with NEPA and the power ministry in the capital Abuja. Enron and the Lagos state government entered a joint venture earlier in 1999 to build an $800 million gas-powered plant with capacity for 540 Megawatt (MW) to augment supply to the city.

AES Nile Power (AESNP), a joint venture between AES and Madhvani International of Uganda, signed the Power Purchase and Implementation Agreements (PPA/IA) on the 250MW hydroelectric project at Bujagali Falls in January, 2000. AES predicts financial closing of the project by October 2000.

CMS Energy Corporation and its Ghanaian partner Volta River Authority took over commerical operation of a 110 megawatt Takoradi Thermal Power plant near Aboadze, Ghana. Construction on a second 110 megawatt combustion turbine generator, is expected to be completed by September 2000.

What we can do

Increased oil and gas production and development of other energy sources will make it possible to supply competitively priced power to millions of Africans. Energy creates new market opportunities for U.S. business, including minority-owned companies. Technological improvements, renewable energy sources, and human capacity building needs offer new opportunities to African and U.S. entrepreneurs. We want to develop public, industry and academic partnerships which result in the market opportunities and environmentally friendly policies so as to foster economic development and lead to a measurable expansion of U.S. energy cooperation with Africa.

Together we can focus on: 1) Opening markets and promoting energy policies and business practices which encourage and support free trade and U.S. investment, private sector needs, adequate legal, financial, commercial, trade and regulatory mechanisms; 2) Promoting regional integration to more effectively distribute power and increase efficiencies; 3) Developing relationships with Africa to strengthen U.S. energy security through diversification and the development of alternative sources of clean energy; 4)Promoting sustainable development to spur economic growth with an emphasis on clean energy technologies and sound environmental practices; and 5)Focusing on replicating successful projects already underway in Africa.

Two key themes of the Department's Africa Initiative are: achieving support from African nations behind private sector investment as the vehicle for achieving economic growth; and realizing that growth can occur in a manner that is supportive of the global environment. At the U.S.-Africa Energy Ministers Conference, we achieved unanimous support among the Ministers on policies and practices that promote economic development, address environmental concerns, encourage private investment, enhance regional integration, and increase access to energy for Africa's people.

The Joint Statement on Investment Principles for the Energy Sector approved at the U.S.-Africa Energy Ministers Conference in Tucson, Arizona demonstrates that African Ministers are committed to creating a transparent and reliable framework that encourages expanded trade and investment in the energy sector. Private investment is critical to meeting Africa's energy needs this century and beyond. Governments have limited resources and which can be more effectively used to critical social needs, such as health, education, and housing. The Ministers agreed to: 1) promote expanded economic production and exports; 2) support the growth of regional markets; 3) increase efficiency of governments; 4) support growth of local private sector, including private ownership of divested government entities; and 5) develop sound fiscal systems. The Statement is a strong foundation to demonstrate the commitment of African Ministers to create the conditions necessary to allay private investors' concerns about profitable returns and governmental stability and guaranty.

Bilaterally, the Department of Energy has strong programs in many African countries. Our longest running and largest effort is with South Africa, a program initiated in 1995 under the Gore-Mbeki Binational Commission. With South Africa, we have worked together on over 100 efforts on joint programs that provide solar power to hundreds of rural schools, clinics and homes, offer training to government and business energy experts, demonstrate low-smoke stoves that reduce health risks and carbon emissions, help to build energy-efficient homes, as well as policy advice and restructuring efforts in oil, gas, renewables, nuclear, nuclear waste, efficiency, electricity, coal and other areas.

We also work with Ghana on energy efficiency activities, which can significantly reduce demand and on energy policy to assist with the electricity crisis impacting the country and the West African region. I traveled to Ghana several times to discuss further cooperation and to lend our support to the West Africa Power Pool, a regional electricity grid, based on the successful Southern African power pool which we also supported.

We have begun to expand cooperation with Nigeria. As a result of Secretary Richardson's visit to Nigeria in August, we have embarked on a bilateral cooperation program. The Department is developing an action plan with the Government of Nigeria which will be coordinated with USAID. Cooperation could include: restructuring and privatization; rural electrification; deployment of clean energy and renewable energy technologies; promotion of energy efficiency; and development of an independent regulatory authority.

The Department has begun working with Angola, which is making progress implementing political and economic reforms. In September 1999, the State Department initiated the Angola Bilateral Consultative Commission. In the context of this Commission, the Department of Energy will work with the Angolan energy ministry to streamline its energy sector and facilitate development of its infrastructure. The Department will work to develop partnerships among the government of Angola, and industry, non-government organizations, and universities to foster economic development to increase U.S. energy cooperation with Angola.

With Mozambique, we are positioned to be actively involved with the U.S. government effort to address the most recent flooding disaster. Prior to this, Departmental officials had traveled to Mozambique last fall and had agreed to send a team to evaluate the potential for renewable energy. That program becomes even more important to the reconstruction effort and we are eager to explore the role that solar energy in particular can be used to bring electricity to Mozambique.

We know however, that individual country efforts in a continent the size of Africa will not be an effective way to reach the many. We are working hard to support regional integration, with efforts like the West Africa and Southern Africa power pools and the West Africa Gas Pipeline, that I mentioned earlier. In this regard, we are building pillars of cooperation with regional organizations such as Economic Community of Western African States (ECOWAS) and Southern African Development Community (SADC). We have also reached out to Common Market for East and Southern Africa (COMESA).

The Tucson Africa Energy Ministers Conference also served as a springboard to inaugurate partnerships with other African countries. The Conference in Tucson produced six new energy initiatives with African countries. These include:

U.S.-Africa Sustainable Energy Program. DOE signed an MOU with the Overseas Private Investment Corporation (OPIC), to create the U.S. Africa Sustainable Energy Program which will assist U.S. not-for-profit entities, non-governmental organizations (NGOs), and small business entities or cooperatives in developing sustainable energy projects in Africa such as photovoltaic systems for rural villages. DOE and OPIC will help identify financing opportunities for projects that meet the program criteria.

Conference on Sustainable Energy Technologies for Africa. DOE will co-host, with an African partner, a Conference on Sustainable Energy Technologies. The conference will help increase the region's understanding of key climate change programs and identify opportunities and projects for U.S. and African business interests, such as geothermal and wind energy systems.

Oil Spill Response Workshop. DOE, together with the International Maritime Organization (IMO) and interested African countries, will plan an oil spill response workshop late next year. The workshop will help develop national and regional capabilities to plan and respond to oil spill emergencies and help support growing environmentally sustainable investment in petroleum exploration and production. The workshop will seek to assess existing capacity, determine needs, and establish a framework to promote a cost- effective response system for Africa. Concurrent with the workshop, DOE will work with the Department of Commerce to co-sponsor an event focused on environmentally sound oil exploration, development and transportation technologies.

Capacity Building Initiative. DOE and the University of Houston's Energy Institute are developing a two week training program "New Era for Oil and Gas Value Creation" to help African government energy officials address issues related to the development of oil and gas sector supply, infrastructure and markets. Support for the program will come from industry partners and collaboration with the World Bank and other international organizations. The initial session will be offered later this year.

Summer Energy Institute at the University of Arizona. DOE and the University of Arizona are working together to establish a Summer Energy Institute for African government energy officials. The institute will follow-up on the themes of the U.S.-Africa Energy Ministers Conference and help participants develop the tools needed to create sustainable energy programs in Africa.

Technical Assistance for Southern Africa Development Community (SADC) Energy Commission. DOE and the U.S. Agency for International Development (USAID) will contribute $1.5 million over the next two years to provide technical assistance and training to SADC and its member countries on regulatory and market integration issues. The projects will help promote competitive energy markets and a positive investment climate.

Global Environment Effort

The Joint Statement on Sustainable Energy Development and Cooperation in Support of the Environment, approved by all countries at the Tucson Energy Ministers conference, highlights important measures that can be taken in the energy sector to address global climate change concerns and to promote a sustainable, cleaner environment for future generations, while ensuring economic growth. It is a recognition by Ministers that global climate change is a particularly important environmental issue that transcends borders and requires joint action. Based on energy demand projections and a rising emission rate, the continent of Africa can play an increasingly profound role in climate change issues.

Africa's energy-related carbon emissions were 240.1 million metric tons in 1998. Currently, Africa's carbon emissions account for less than 4% of the world's total carbon emissions. Africa's 1998 carbon emissions were comparable to India's 252.6 million metric tons of carbon emissions. Carbon emissions have increased by 165% since 1980 (from 145.5 million metric tons to 240.1 million metric tons). Carbon emissions are projected to continue to grow through 2020. Oil's share of total carbon emissions is expected to increase from 42% in 1998 to 52% in 2020. The share of carbon emissions from consumption of natural gas is expected to decrease, from 20% in 1998 to 16% in 2020. Coal's share of African carbon emissions is expected to fall from 38% in 1997 to 33% in 2020.

The Joint Statement on Sustainable Energy Development and Cooperation in Support of the Environment demonstrates a joint commitment to the development and deployment of innovative, competitive technologies and the implementation of energy efficient strategies that minimize the growth of greenhouse gas emissions. This document reaffirms the intricate links between clean energy options and sustainable economic growth. The introduction of clean energy sources and energy efficiency measures will greatly contribute to lower greenhouse gas emissions. The United States is firmly committed to cooperating closely with African countries to help accelerate the path to a sustainable energy future.

Structure and Goals

Under the Department's Africa Energy Initiative, the Department of Energy is working with countries and regional organizations in Africa along with U.S. organizations, such as the Agency for International Development (USAID), the Overseas Private Investment Corporation (OPIC) and the Export-Import Bank (EXIM), to promote sustainable economic and energy development.

We believe energy development in Africa should not only generate export revenues but also must first respond to internal energy demand and address the issues of sustainable development that benefits all African citizens. One goal is to work at the government level to create an investment climate that encourages energy companies to develop and support markets within Africa and not just focus offshore and export directly.

Good corporate citizenship, which includes continued investment in local communities and developing indigenous human infrastructure, is an important element that we hope to advance under the Initiative.

The Department's African Energy Initiative is inclusive, representing a broad swatch of the vibrant tapestry that is all of Africa, not just that handful of partnerships established over the last ten years or so. We are striving to identify and develop new opportunities for bilateral and regional cooperation and new activities, along west, east, southern and northern lines.

Closing

I am very pleased to be here with you to discuss *Africa's Energy Potential: U.S. Energy Policy In Africa.* We believe there is an opportunity to develop policies and partnerships which will allow Africa to realize its full energy and economic potential, and sustain an ecologically sound future for all its people. Where there is energy, there is light, there is the power to learn, to build and to manufacture and to develop. Energy development supports education, industry, agriculture, and health. We have the opportunity here to begin together to do it right—to set up the institutions, the rules, laws regulatory frameworks and judicial systems that will result in a sustainable energy future, in economic upliftment.

We believe the Department of Energy's Africa Energy Initiative will help promote sustainable energy development in Africa and lead to a measurable expansion of U.S. energy cooperation with Africa, well beyond the tenure of Secretary Richardson and the Clinton Administration.

Mr. Chairman, this concludes my prepared statement. I will be happy to answer any questions.

West Africa: Oil and Gas Opportunities

J. Robinson West

March 2000

THE PETROLEUM FINANCE COMPANY

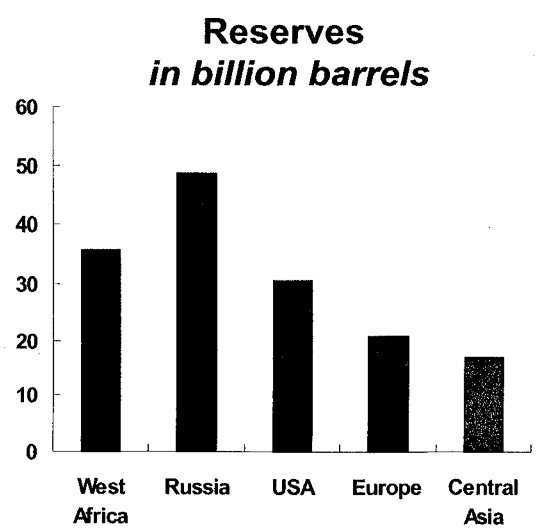
PETRO FINANCE

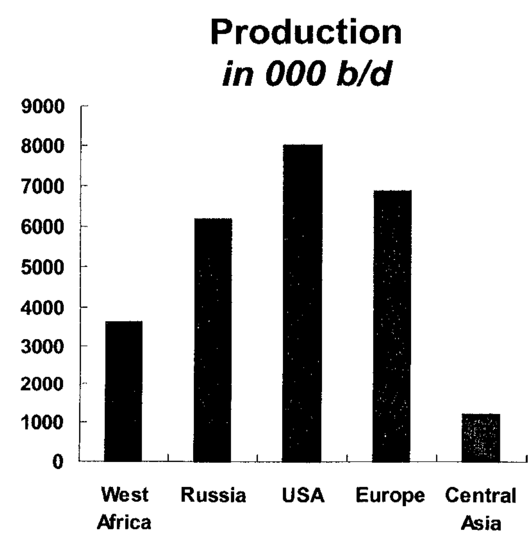
Why Is West Africa Attracting So Much Interest?

- New technology opening up attractive deepwater opportunities
- Large offshore reserves *(recoverable reserves estimated 5+ billion barrels)*
- Governments need for oil revenues
- Governments track record with foreign oil companies over time
- IOCs knowledge of countries and geology

West Africa: Oil and Gas Opportunities

West African Reserves and Production





Impact of Deep-Water Developments

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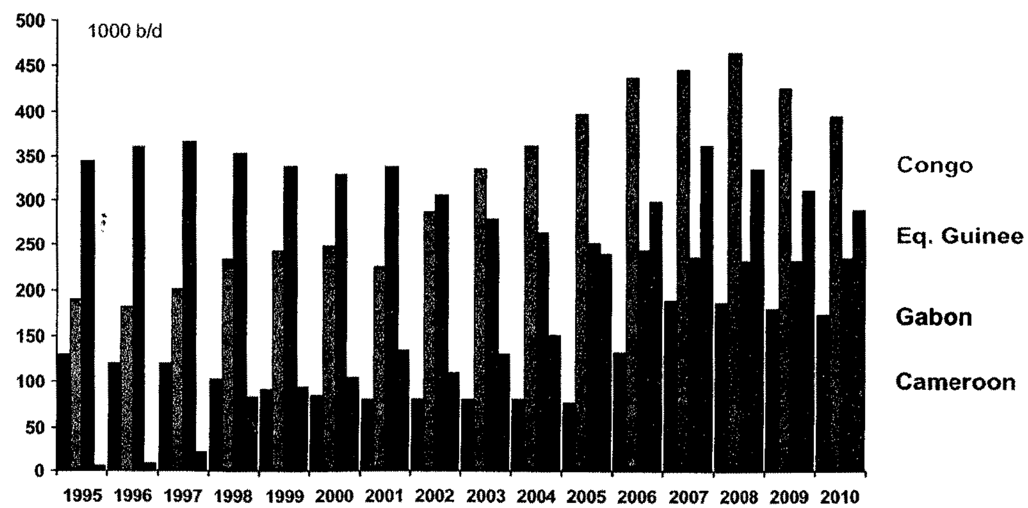

West Africa: Oil and Gas Opportunities

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Impact of Deep-Water Developments

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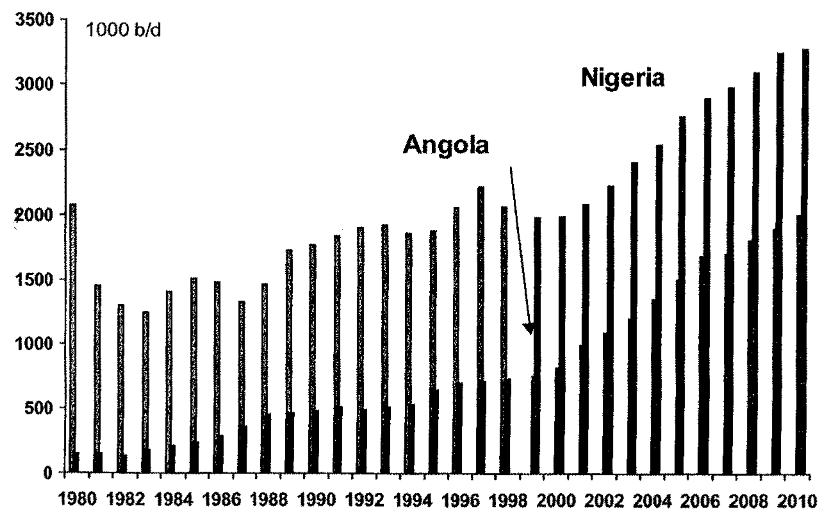
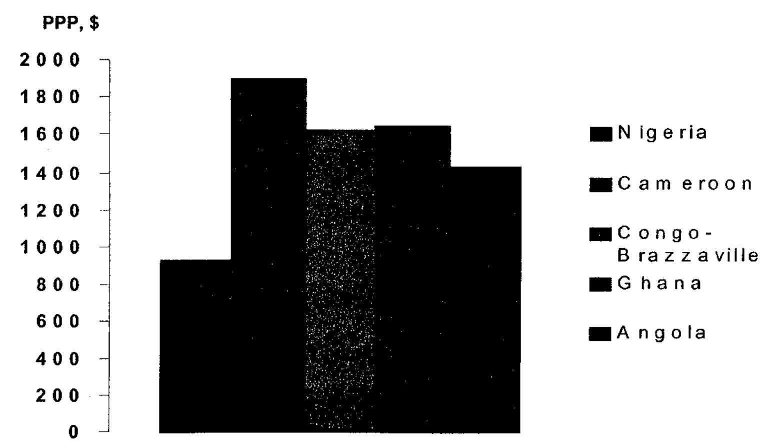


West Africa: Oil and Gas Opportunities

Oil investment needed to lift per capita GDP

Comparative GDP Per Capita



West Africa: Oil and Gas Opportunities

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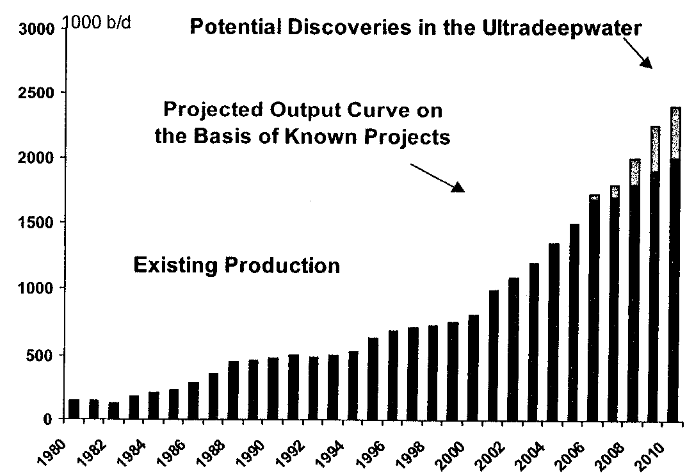
Angola's Upside
Historical and Projected Crude Production



West Africa: Oil and Gas Opportunities

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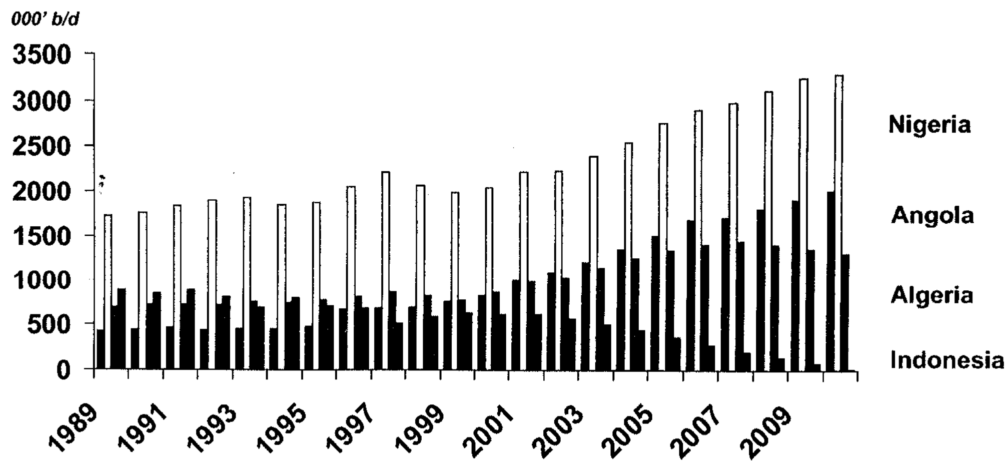
Angola and Nigeria
Compared to Other Large Oil Exporters



THE PETROLEUM FINANCE COMPANY
PETRO FINANCE

Challenges Ahead

- The Governments of West Africa need to create a secure environment for foreign investment
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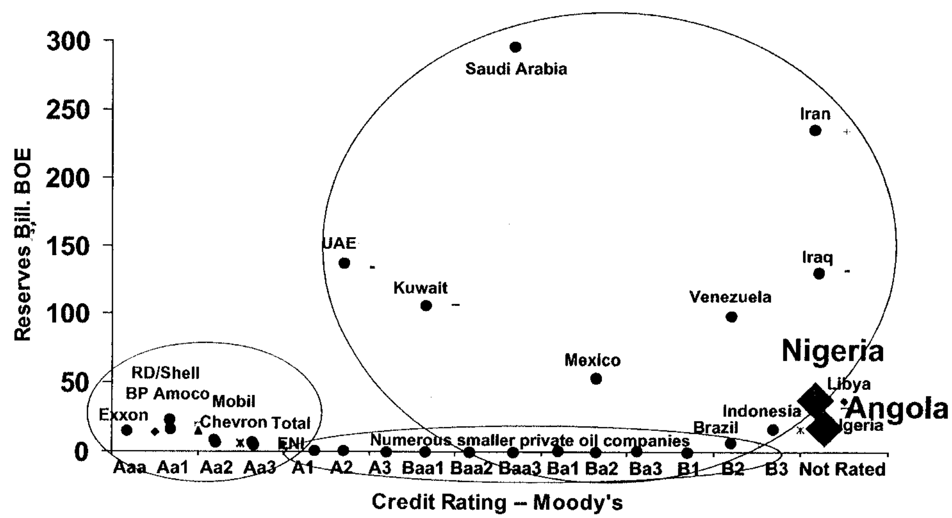
West Africa: Oil and Gas Opportunities

THE PETROLEUM FINANCE COMPANY

Foreign Investments are Needed

Oil, Money and West Africa



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Comments on the Competition in West Africa

- The high costs of deepwater investment,
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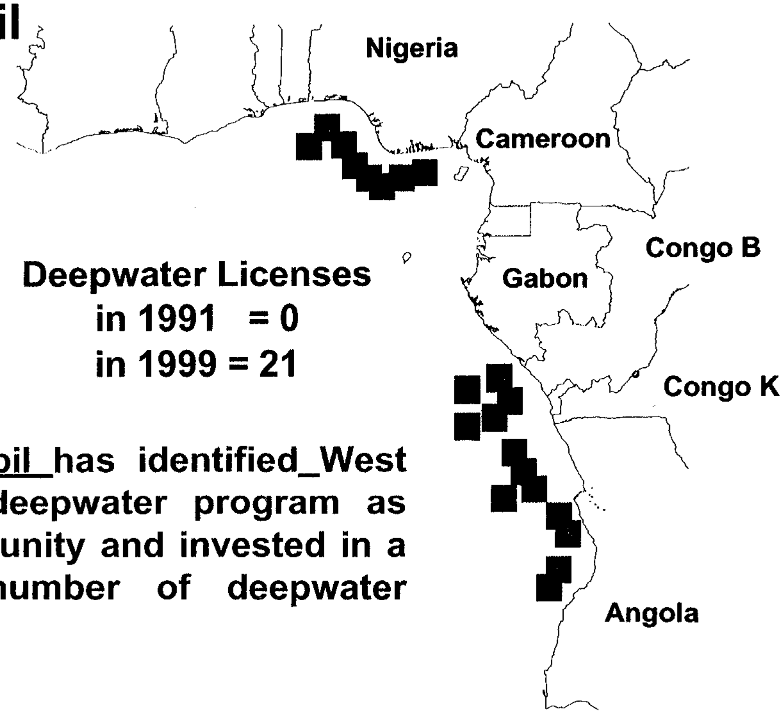
West Africa: Oil and Gas Opportunities

Exxon Mobil



Deepwater Licenses
in 1991 = 0
in 1999 = 21

ExxonMobil has identified West Africa's deepwater program as an opportunity and invested in a large number of deepwater licenses

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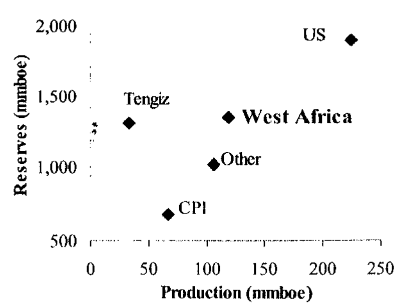
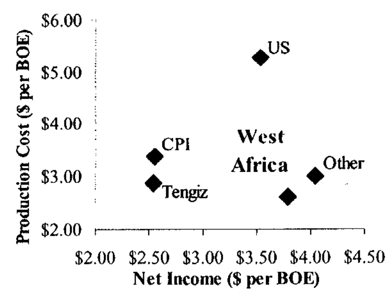
Chevron in West Africa

Reserves & Production in 1998



Production Cost & Net Income: 1996-1998



West Africa operations (essentially Nigeria and Angola) comprise an important part of the production and reserves base (growing - in contrast to the US) and the low production cost portion of the portfolio. In concert with superior price performance, West African barrels are critical to Chevron's performance - much more than Tengiz

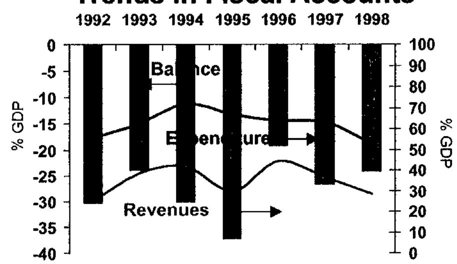
Angola

West Africa: Oil and Gas Opportunities

THE PETROLEUM FINANCE COMPANY
PETRO FINANCE

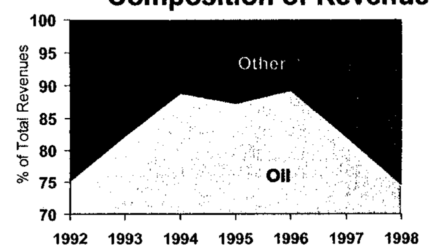
Angola: Petroleum is Key to Stabilizing Finances

Trends in Fiscal Accounts



- Need to balance the budget
- Oil revenues account for 90% of total revenues
- Defense and interest payments account for the bulk of the expenditures

Composition of Revenues



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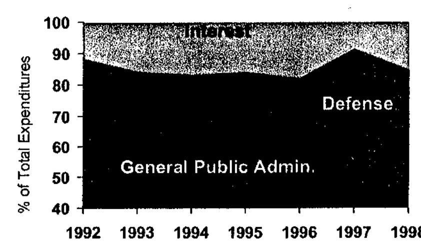
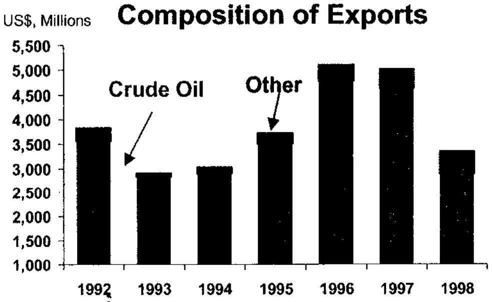


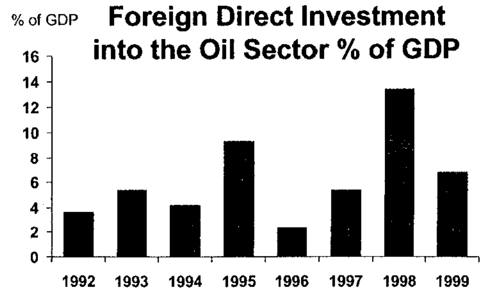
Angola: Petroleum is Key to Stabilizing Finances

Composition of Exports



- Crude oil dominates exports
- Current account balance needs to be stabilized
- Financed primarily by reserves and foreign direct investment (signature bonuses)
- External reserves need to be stabilized

Foreign Direct Investment into the Oil Sector % of GDP



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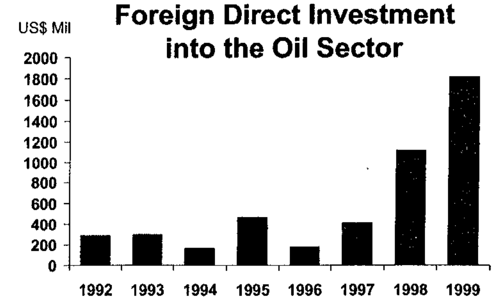


Angola: The Outlook

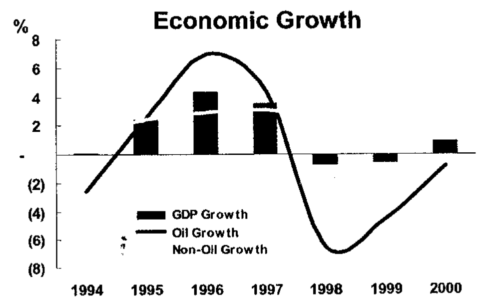
Need for oil sector revenues will increase with growing budget requirements

- Economic challenges will increase the need for foreign partners – most likely these will be foreign oil and gas companies
- The budget pressures will continue to drive high signing bonuses
- The partnership between European and North American companies and the Government of Angola and ensuing linkages will play an increasingly important role in economic development of the country

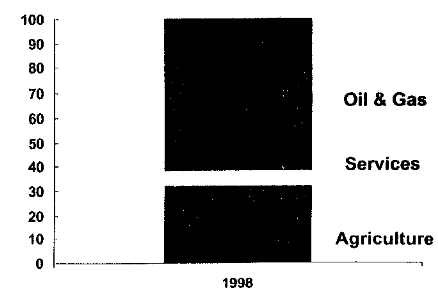
Oil revenues, economic reconstruction and good governance will combine to stabilize Angola transforming it into a regional power

Nigeria

Nigeria: Petroleum is Key to Stabilizing Finances



- *The oil and gas sector, which accounts for around 40% of the economy, is the main driver of growth. Other sectors have been stagnant.*

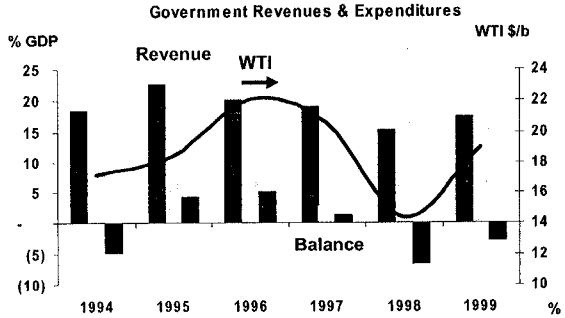


- *As diversification will take time, the performance of the oil and gas sector will remain the determinant of economic performance.*

Nigeria: Petroleum is Key to Stabilizing Finances

Fiscal Balance

Government Revenues & Expenditures



The already high dependence on oil revenue looks set to increase as expenditure rises inexorably. Given Nigeria's limited ability to influence prices, <u>boosting production will be the key focus</u>.

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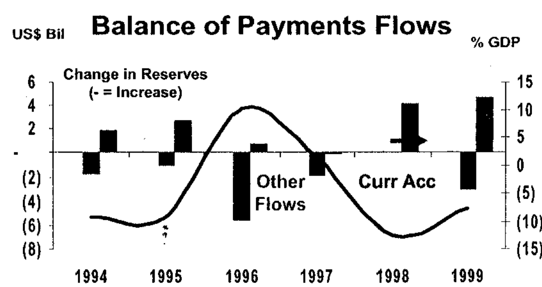
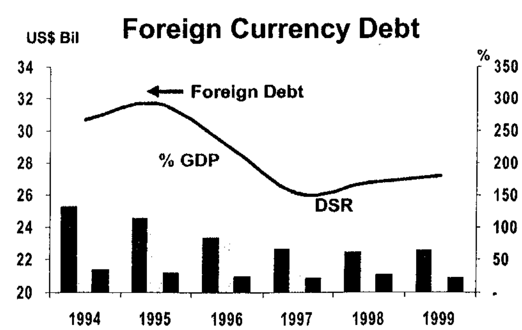
Nigeria: debt relief and injection of foreign investement is key to jump-start the economy



Debt rescheduling-relief will be insufficient to solve Nigeria's balance of payments problems



Economic recovery will demand foreign investment in the oil and non-oil sectors

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Nigeria: The Outlook

- Obasanjo's election has introduced a new dynamic to the traditional political structure
- Old tensions that pose a threat to stability are implicit in the emerging system:
  - North-South divide
  - Politically ambitious elements within the military
  - Ethnic minorities
- Improvements in the economy will be crucial for political success

The energy sector will remain the main economic driver and the main source of foreign investment in the short to medium term.

The Gas-flaring Conundrum

The reserves of the future are in the deep and ultra-deepwater, but handling the associated gas will be problematic

Gas Flaring and Deep Water Development

•Emphasis on zero or minimum gas flaring could create potential delays in project start ups

•Slow domestic gas market development indicates that Nigeria and the greater region will not be able to offer sufficient absorption capacity for zero flaring of deepwater fields especially if onshore and shallow water flaring is being reduced at the same time

•The only outlet for substantial volumes of flared gas is likely to be an export route

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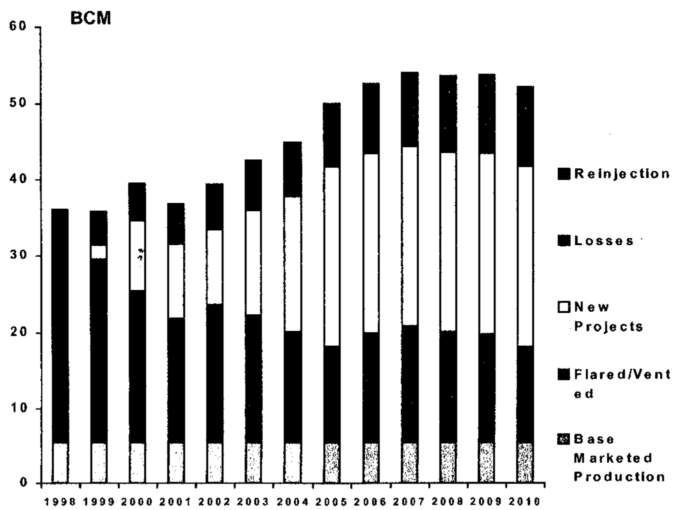
Estimates of Natural Gas Utilization Assuming Crude Oil Output Scenario



Petro Finance Estimates

Assumptions driving this gas utilization scenario:

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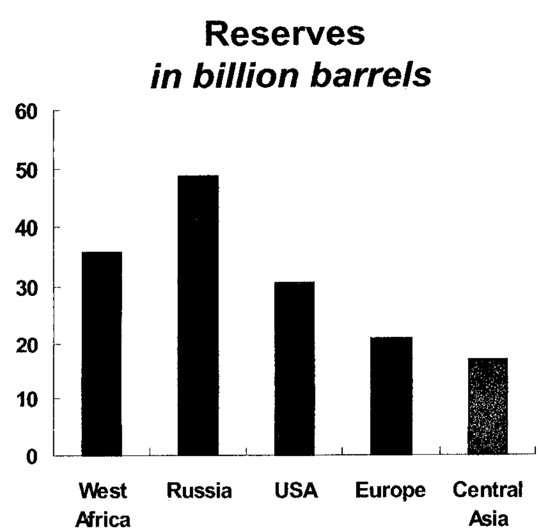
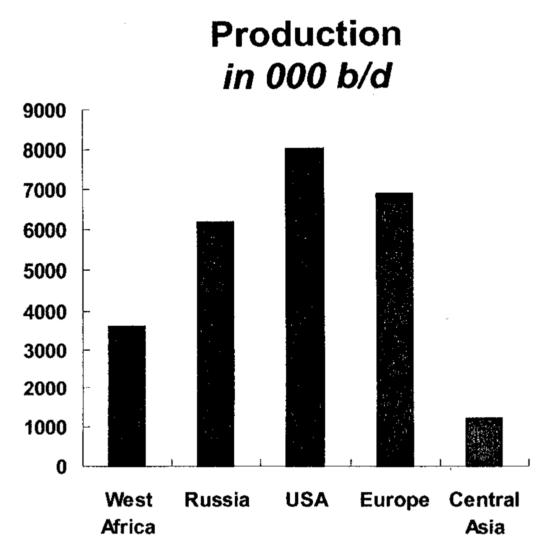
West Africa: Oil and Gas Opportunities

West African Reserves and Production





West Africa: Oil and Gas Opportunities

Impact of Deep-Water Developments
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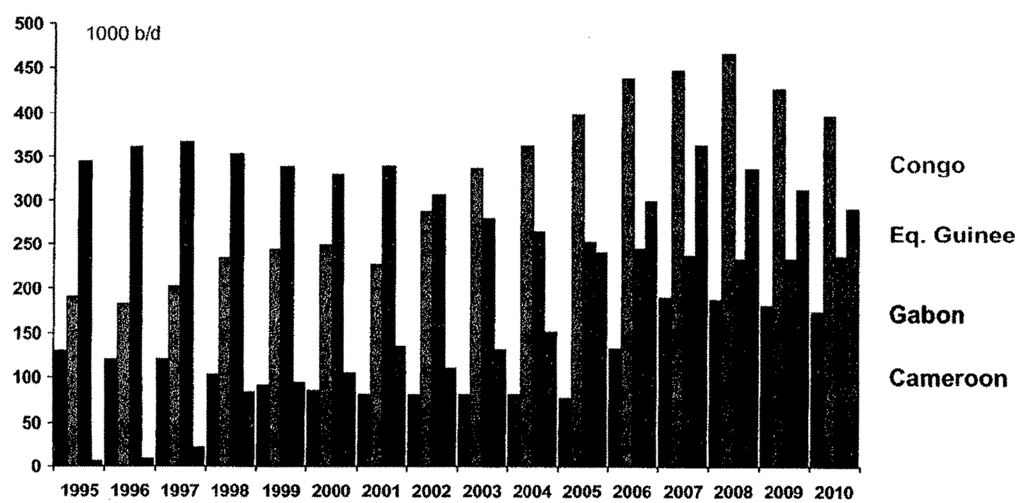

West Africa: Oil and Gas Opportunities

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Impact of Deep-Water Developments

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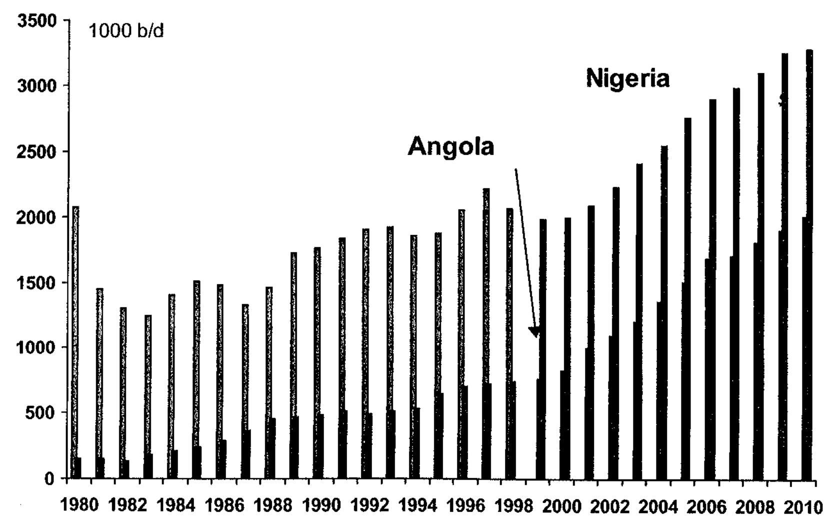

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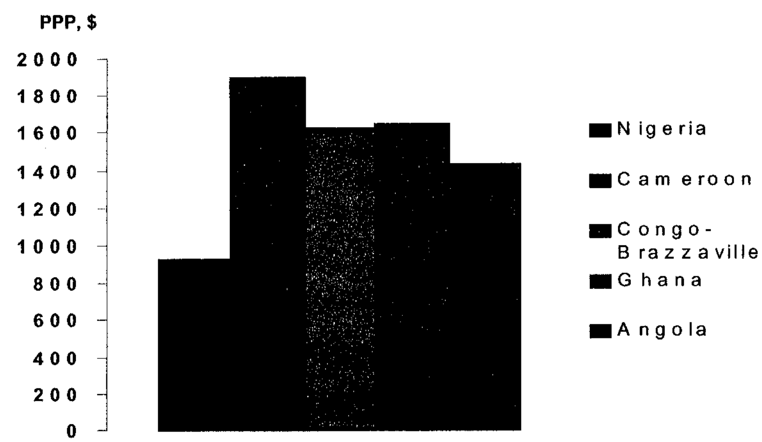

West Africa: Oil and Gas Opportunities

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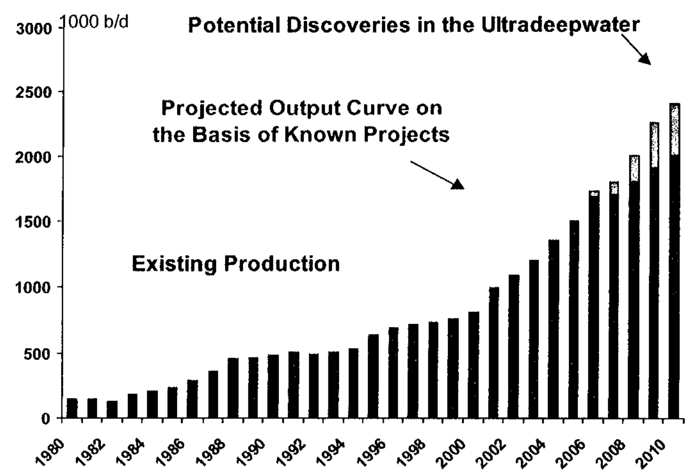

West Africa: Oil and Gas Opportunities

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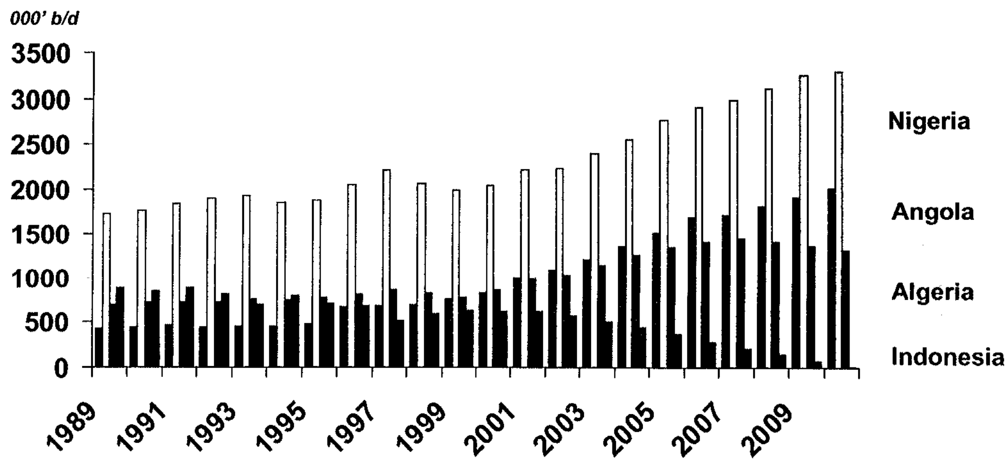

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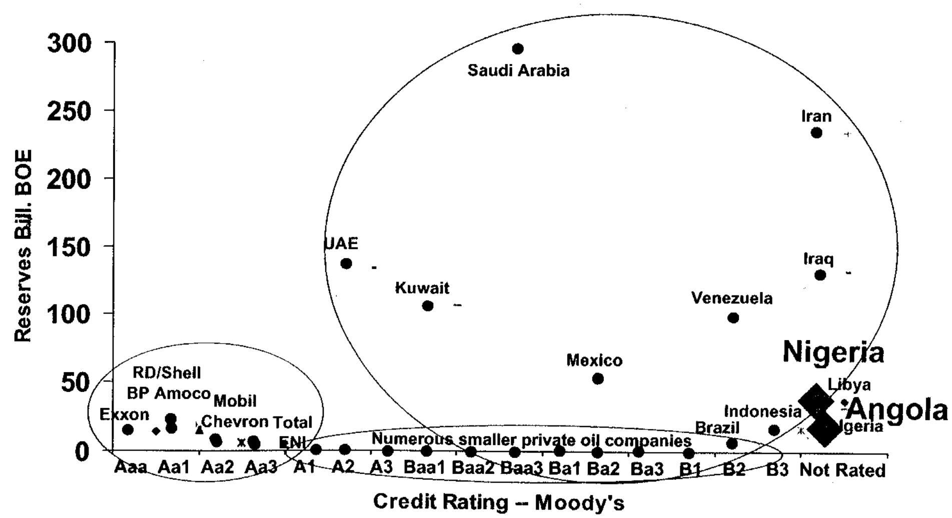

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West Africa: Oil and Gas Opportunities

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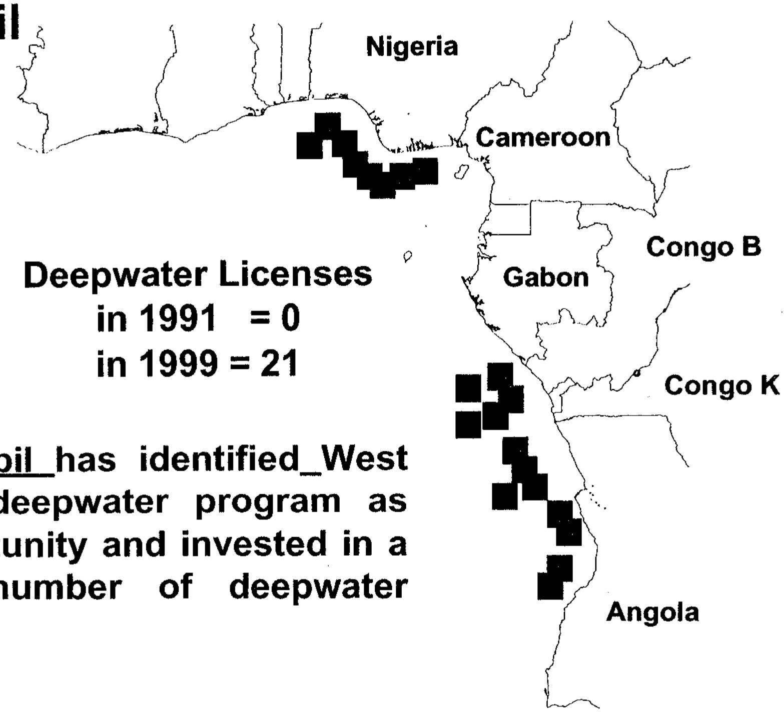

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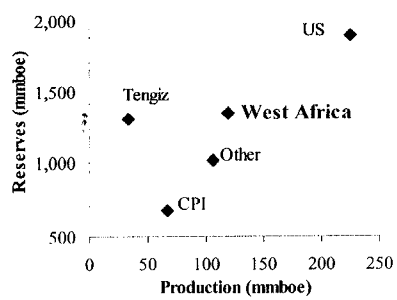

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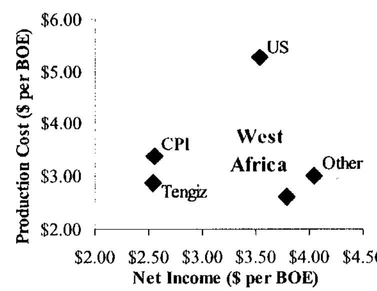

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Angola: Petroleum is Key to Stabilizing Finances

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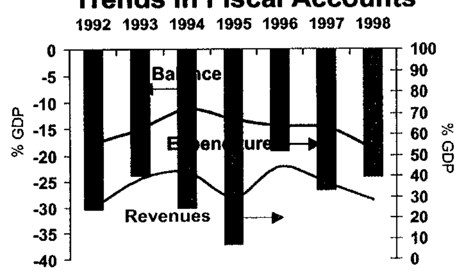

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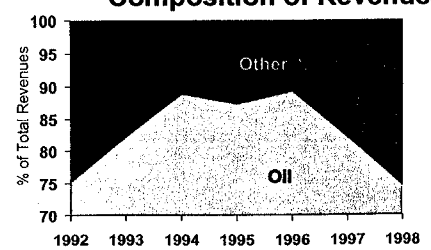

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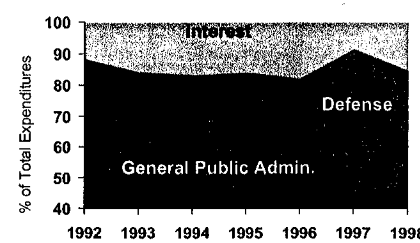

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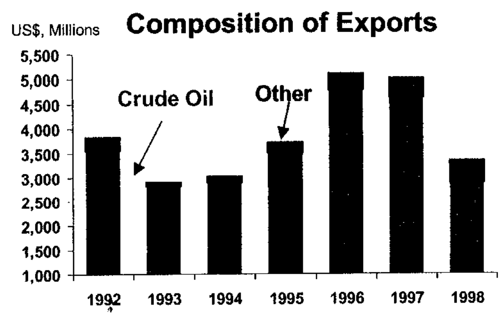

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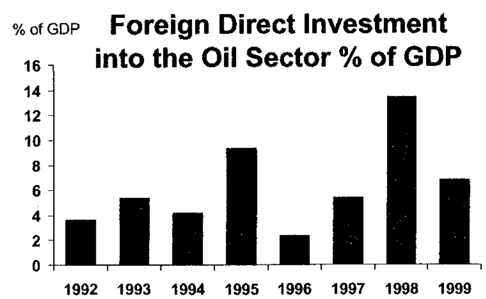

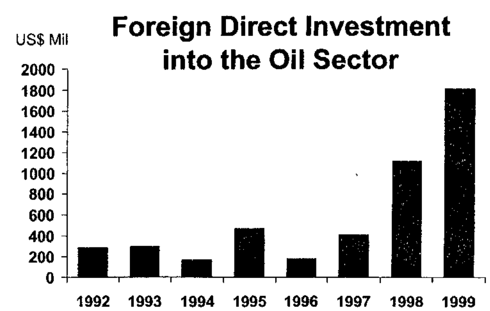

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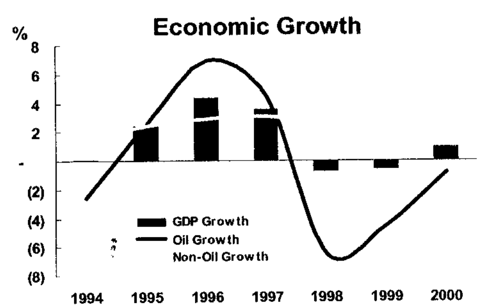

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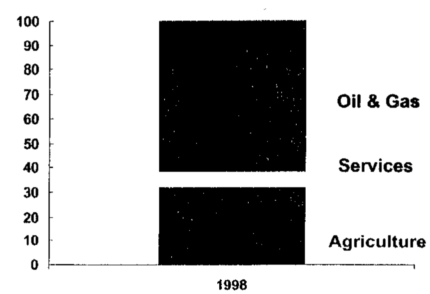
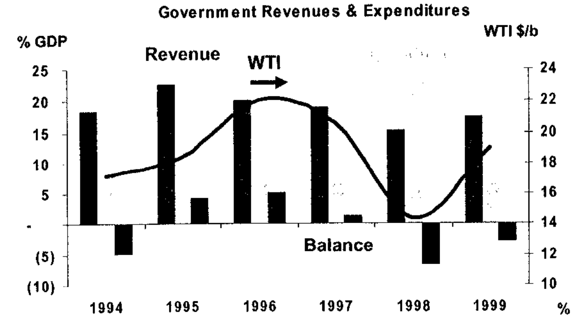


Nigeria: Petroleum is Key to Stabilizing Finances

Fiscal Balance

Government Revenues & Expenditures



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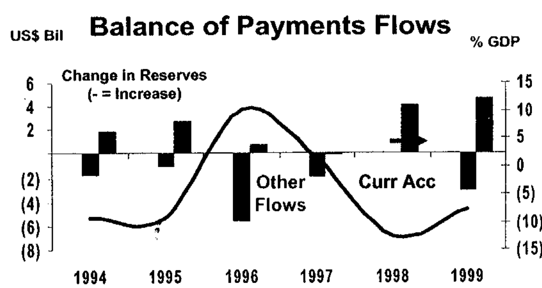

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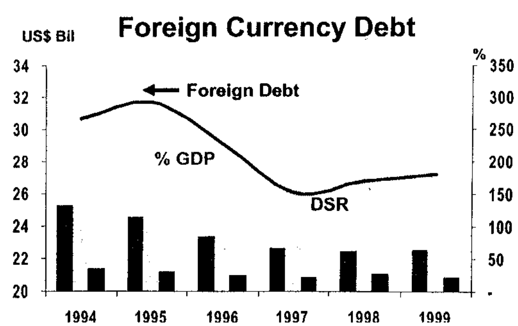

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West Africa: Oil and Gas Opportunities

THE PETROLEUM FINANCE COMPANY
PETRO FINANCE

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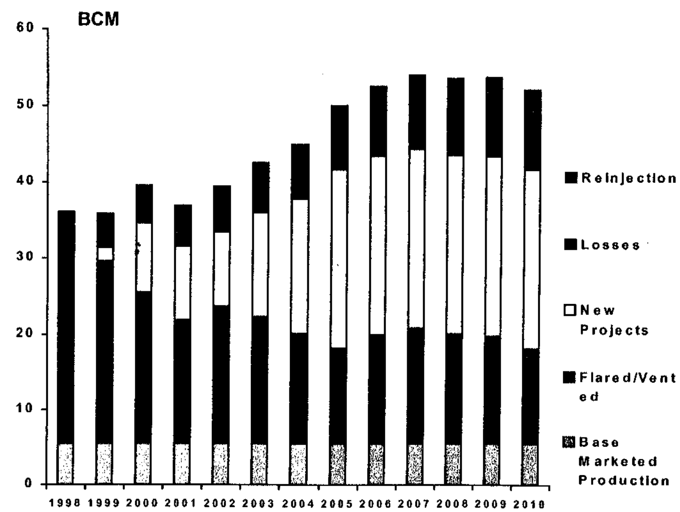

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CHEVRON CORPORATION

Statement presented to the

Africa Subcommittee
of the
Committee on International Relations
U. S. House of Representatives

March 16, 2000

Peter J. Robertson
President
Chevron Overseas Petroleum, Inc.

CHEVRON CORPORATION

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INTRODUCTION

Chevron has been active in Africa for more than six decades and is arguably the largest US investor on the continent today. We are appreciative that the Africa subcommittee is looking into the impact and potential of energy resources in Africa – and welcome the opportunity to convey our own learnings and experiences as part of the record.

Attached to this statement, starting on Page 7, is an Operations Overview that provides specific country-by-country detail on our operations, community development, and business development activities

Chevron's original investments in Africa were through Caltex Petroleum Corporation, which developed petroleum refining and marketing capabilities in Southern and Eastern Africa. Chevron and its predecessor companies initially invested in petroleum exploration and production operations in the 1950s and with its partners over the past 5 years alone, have invested approximately $9 billion in African oil and gas projects.

Our four-decade presence in the production sector has yielded many benefits for the nations of Africa and for the United States. These take the form of:

- Jobs and export opportunities for United States
- Investment opportunity for United States sourced capital
- Crude oil for import to the United States (Africa currently supplies 15% of US crude oil requirements)
- Significant production sales revenues for our host-country partners
- Host country tax revenue against Chevron earnings
- Job training and technology transfer to host-country
- Sustained community and social investments

Chevron's ability to maintain effective business operations in Africa is founded on unwavering business ethics and principles. They start by being a fair and reliable business partner – we pride ourselves on following through on commitments per our agreements. Although we strive within legal and regulatory bounds to assist communications within and between governments, we remain apolitical with respect to the government in place. This consistent stance enables Chevron to be a stabilizing force during periods of transition, and, as of late, to be a leader in regional projects that bring several African nations together.

Social Responsibility

Although we have been honored to work with our African partners for four decades, we still view ourselves as the guests of host nations. This is manifested by respecting the people and cultures in our business and community development activities. Chevron carefully designs social/community programs in concert with our hosts – answering to their needs and concerns, and, within our capability, delivering programs to address host-community identified needs. Chevron is continually looking for opportunities to make a positive impact and influence the quality of people's lives for the better. We are proud to be one of the original signatories of the Global Sullivan Principles of business conduct and look forward to cooperation with Reverend Leon Sullivan's efforts to enlist wide corporate support in his worthy cause.

Chevron is committed to supporting human rights in Africa and in all of its other operating areas. Support for human rights is well aligned with values shared by all Chevron employees as set out in *The Chevron Way*, which is a composite of statements encompassing Chevron's Mission and Vision, Committed Team Values, Total Quality Management, Protecting People and the Environment and Vision Metrics. These statements sum up who we are, what we do, what we stand for and what we believe in. Indeed, these values are in lock-step with the Global Sullivan Principles.

Chevron and Africa: A Historical Perspective

It is quite arguable that Africa has gone through more political, economic, and social change during the latter-half of the last century than any other region on earth. Although we have come a long way since our first entry on the continent, operating in African countries continues to be a learning experience for Chevron. Recognizing our own imperfections along with the continually changing external environment, we strive to develop our thinking and translate that into practical ways to help, to foster positive change, and to encourage economic development.

In fact, recent changes have adjusted our community investment strategies. Where our community investment strategies formerly focused solely on aid, we have developed an additional strategy – trade. With the acknowledgement of both our host governments and the United States Government, we have evolved that in addition to the more traditional community development activities such as building schools, clinics, and basic infrastructure, Chevron is now engaged in business development activities including reverse trade missions, job skills development programs, and alliances with developmental NGOs – helping to develop economic independence for individuals and businesses in areas where we operate. This new and incremental piece to our community investment has the benefit of becoming a local stabilizer – fostering the security of our host communities as well as our operations.

Another new strategic approach is to develop regional rather than single-nation projects. The West Africa Gas Pipeline project is an example, commercially linking the nations of Nigeria, Benin, Togo and Ghana. Though details of this specific project are described later in this statement, it is important to note here that regional projects also encourage regional stability.

Chevron and the Environment

Chevron integrates environmental protection into every aspect of its activities wherever it operates and employs its high environmental standards throughout its worldwide operations. The company's policy, *Protecting People and the Environment*, emphasizes safe operations, compliance, pollution prevention and community programs. In addition, Chevron works continuously with governments to develop environmental protection and industrial safety regulations.

- In Nigeria, one of our major projects is to significantly upgrade our production facilities, including the installation of improved equipment to reduce discharges and reduce the risk of oil spills. When the upgrade project is completed in 2001, Chevron will have invested $340 million.

- In addition, the company maintains a stockpile of spill response equipment and conducts regular training and exercises. Chevron also helps sponsor Clean Nigeria Associates, an oil-spill cooperative with fast response boats and inflatable booms. Chevron's oil recovery swamp skimmer was one of the first of its type in the country.

- In recognition of the company's commitment to protecting the environment, Chevron received the Nigeria Environmental Protection Agency's Environmental Excellence Award, and the Nigerian Conservation Foundation honored Chevron with its award for pioneering environmental excellence.

- Chevron believes that the combination of the Escravos Gas Project, the West Africa Gas Pipeline Project, and the Gas-to-Liquids projects in Nigeria will provide significant environmental benefit to both Nigeria and the region by eliminating the need to routinely flare associated natural gas.

- Chevron has also recently brought on-stream the Gbokoda and Dibi oil fields, the joint venture's first "zero-flare" fields.

- Chevron, as operator on behalf of its partners, started production on the Kuito Field last December– the first deepwater production in Angola. This will be a zero-flare operation, with all produced gas used on site as fuel or reinjected into the reservoir.

- As operator, Chevron initiated production in Nemba Field, in shallower Angolan waters, a full three-years ahead of schedule by utilizing a system of subsea wells produced back to a floating production system (Early Production System) while permanent production facilities were under construction. Nemba is also a zero-flare operation, with all produced gas re-injected into the reservoir.

Emergency and Humanitarian Capabilities

Chevron's credibility, when coupled with the infrastructure required to maintain oil production operations, enables rapid and effective response to emergency situations – either from acts of God or internal challenges. In one instance, Chevron was able to provide services to Peace Corps volunteers who were trapped in a country's interior during a period of internal conflict. This specific case was initiated by contact from Washington-based Peace Corps officials who recognized that specific attributes relating to our operations and relations ethics were essential during this time of turmoil.

Chevron played several roles, first as mediator by contacting influential parties in our operator area (near-shore) to explain the situation. With trust and respect founded by our long-term reputation, these local forces listened to and easily understood the message of reason we conveyed. Then, through their internal communications channels, the local forces enabled safe transit for the volunteers through the country's interior to our shore base.

From that base, the forces allowed Chevron to transport the volunteers by boat to our offshore facilities that were housing evacuated personnel. They were then transferred by helicopter to the safety of a secure onshore facility outside of the conflict area – where showers, warm meals, any necessary medical treatment, and eventual repatriation were coordinated.

This is an example where our neutrality and reputation becomes an enabler in some of the most challenging of circumstances.

Government to Government Relations

We are also encouraged regarding the role of intergovernmental relations in this new era of Africa. There are several benefits and several new opportunities of increased dialogue. Building on the example of the previously mentioned West Africa Gas Pipeline, much of that project's recent forward momentum is attributable to mentoring efforts of the United States Government. While the project has nil significant technical challenges, establishing the regulatory framework to enable construction, maintenance, and reliable operation of a pipeline between four sovereign African nations is unprecedented and challenging. As project developer, advocating and mentoring the regulatory evolution is inappropriate for Chevron. We would like to thank the several agencies of the United States Government, including the Departments of Commerce, Energy, and State – plus USAID – for their innovative contributions and engagement of this issue. Through the cooperative efforts of the US public and private sectors, this leading-edge regional project will move forward and serve as a model for more to come.

The United States Government has been instrumental in developing various forums for bilateral and multi-lateral dialogue with the nations of Africa. The Secretary of Energy was able to gather almost all of the Energy Ministers from Africa for one week last December in Tucson. This enabled policy discussions and project opportunity development – plus interaction with the private sector. Chevron was proud to be a host sponsor of this conference, and welcomed opportunities to engage senior African officials in countries where we currently operate and become acquainted with representatives of other countries where we can seek opportunities for mutually beneficial engagement in the future.

The State Department led a multi-agency engagement of the Angolan government through the Bilateral Consultative Commission (BCC), the first session held in Washington late last year. We applaud both governments for taking this important step. As the civil hostilities in Angola eventually subside, opportunities for government-to-government dialogue must develop to assist the transition to a successful and stable peace environment in that country. We will support the leadership of the Assistant Secretary of State for African Affairs and the efforts of other Departments and Agencies to maintain the momentum of the BCC process and its initiatives.

Chevron also applauds USG's engagement of the Obasanjo administration in Nigeria. We are encouraged by President Obasanjo's leadership and changes placed to date, and look forward to working with both USG and Nigeria as reforms continue to evolve and Nigeria strives to reach its economic and regional potential.

Chevron's Domestic Engagement on Africa

Chevron's domestic engagement on Africa has centered on two focal areas: 1) business development opportunities for small and medium investors, and 2) public policy.

Many organizations have sponsored trade missions to Africa. Although our size and long-term experience on the continent means these missions provide us with minimal direct business opportunities, we recognize increasing diversity among investors and sectors influences stability and broadens the US understanding of Africa. To this end, Chevron routinely provides support to trade missions visiting areas where we operate – we will be supporting a trade mission to Nigeria planned for later this year by the Corporate Council for Africa. This support will take the form of a social event and facilitating meetings between participants and key officials in country.

Chevron has provided sole support to certain trade missions to Africa. One such mission, in 1997 brought four minority owned firms to the continent. This particular initiative has yielded direct investment. We have continued to work on several initiatives with one participating firm, a Northern Virginia based information technology company – including most recently, a feasibility study for a public-private partnership for a power transmission system.

Later in this statement, we will discuss a Reverse Trade Mission, where several Angolan entrepreneurs from various agricultural sub-sectors were brought to the United States to engage with businesses, academia, and government groups from those sectors. While this provided opportunities for the visiting Angolans, it also provided opportunity for the involved US investors to develop business relationships in Angola. Follow up work relating to this reverse trade mission is continuing.

With regard to policy, Chevron has been a leading private sector advocate of the African Growth and Opportunity Act. We have been proactively involved from the earliest days of the legislative process on this important bill. Chevron was one of founding members of the African Growth and Opportunity Act Coalition, a grouping of companies and organizations interesting in moving the bill forward. Beyond participating as an active Coalition member, Chevron also coordinated sole ads, op-eds, and social events in support of the bill. Although the bill has minimal impact for a long-term and high level African investor such as Chevron, we recognize the importance of the bill to create opportunities for new US investors as well as new businesses on the continent.

Chevron was proud to be the only energy company invited to support the recent National Summit on Africa. This provided us an opportunity to involve a large and diverse domestic constituency interested in Africa. Our involvement enabled many groups to become better acquainted with the breadth of our activities on the continent. Chevron also participated in the formal program through delegate workshops on trade and on agribusiness. We welcomed the opportunity presented by the National Summit and look forward to similar activities in the future.

SUMMARY

Chevron's long-term presence on the African continent has yielded direct and indirect positive dividends to the nations of Africa, to the bilateral relationships between the United States and African nations, to the energy security of this country, and to our shareholders. Our principles and business ethics are valued and respected by our host-nations. Our commitment to human resource and community development through focused programs has opened doors of further opportunity and dialogue.

While recognizing that no environment is perfect, we are confident beyond measure that the interests of Africa, the United States, and our shareholders have been greatly enhanced by our presence on the African continent. We look forward to continued presence for generations to come.

We are delighted to have the opportunity to provide this statement covering our activities on the African continent with the Africa subcommittee of the Committee on International Relations and appreciative that the subcommittee has availed time to discuss this topic of important commercial, social, and security concern to the United States.

OPERATIONS OVERVIEW

The following sections provide key details on countries where Chevron has ongoing operations.

ANGOLA

Chevron has been active in Angola since the 1950s as Cabinda Gulf Oil Company Limited (CABGOC), operator of offshore oil concessions in the northern enclave of Cabinda. There, CABGOC operates the 2,100 square mile Block 0 concession on behalf of its Association partners SONANGOL (41%), the Angolan national oil company, Agip (9.8%), and Elf Acquitaine (10%). Chevron's production, which accounts for about two-thirds of Angola's total, currently averages over 519,000 barrels per day, of which about 50% is destined for US markets. Although the country has had a series of challenges relating to hostilities between the government and UNITA, these hostilities have had minimal impact on our operations.

Chevron's recent announcements of a number of significant oil discoveries in deep water Block 14 coupled with the first production of the Kuito field (Angola's first deep water producer) on December 15, 1999 are encouraging signs of that area's economic potential and enhances Chevron's current plans to boost production to 600,000 barrels per day by 2003. Chevron's partners in 1,560 square-mile Block 14 area are Sonangol (20%), Total (20%), Agip (20%), and Petrogal (9%).

Chevron remains committed to the process of nationalizing our workforce and has made *"Angolanization"* a key business objective. Currently, 1,600 of our 2,000-employee workforce are Angolan nationals and we look forward to increasing this number over the next few years. Several Angolan employees have completed skills development assignments abroad and have returned to assume supervisory and managerial positions within CABGOC.

Chevron places great importance in the social and community development of Angola, consistent with our philosophy of economic and community investments in countries where we conduct business. Further, Chevron is mindful of the changes taking place in Angola and have committed to community affairs programs that are aligned with these changes. Significant progress has been made in the past two years to implement social programs in the interior of the Cabinda Province. These social investments are done through the Cabinda Association. As such, Chevron's partners (including the Angolan state oil company, Sonangol) are also community investment partners – effectively sharing the gains enabled by oil development with the communities surrounding our operations.

Angola: Community Development Examples

- **Africare**
  Chevron and its partners have contributed $50,000 in 1997 to Africare in Angola towards a program to support and train 16~18-year-old youths. The program teaches these young men skills in welding, carpentry and basic electricity. The first class of 30 welders has graduated from the 5-month long program and the Ministry of Labor is assisting in

securing jobs. Major companies such as Oderbretch and Texeira Duarte have expressed interest in providing job opportunities for the trainees. Based upon the success of the first class, Africare is training a second class of 80 young men and Chevron invested another $50,000 to Africare in 1998, $20,000 in 1999. This donation brought the total donation to Africare to $120,000.

- **Cabinda General Hospital Blood Bank**
  Chevron and its partners have assisted in setting up a state-of-the-art blood bank at the Cabinda General Hospital. The bank provides blood-screening services for Hepatitis, HIV and others infectious diseases. Chevron has announced a $250,000 donation from Block 14 partners for the blood bank. These funds are being used to update equipment and staff training services at the blood bank. The company is very proud of its association with the bank and CABGOC. Medical staff from both Malongo and Cabinda Clinic, work very closely with the blood bank and have arranged for training of the blood banks' staff.

- **Escola 302**
  Inaugurated in July 1998, and attended by Angola's First Lady Mrs. Dos Santos, Escola 302 was renovated and funded solely by Chevron. Located adjacent to Chevron's new office building in Luanda, the $280,000 renovation included repairing the school's classrooms, painting the building, restoring the water and sewage systems, and the installation of new lighting. The school educates approximately 300 elementary school students.

- **IFESH**
  Since 1995, Chevron and the Cabinda Association have contributed a combined $300,000 to Rev. Leon Sullivan's IFESH organization in support of a pilot project to provide basic job training skills, such as carpentry, masonry, etc. to war-displaced Angolans. The project is located in Kwanza Province. As similar $300,000 project was also planned for the Cabinda Province and Luanda.

- **Education Model**
  In April 1999, educators from Atlanta, Angola's Ministry of Education, and Cabinda Province Education Department, started to review the country's education system. Observations from this study resulted in a document, which will guide future education in Cabinda as well as Angola at the elementary, technical and High School levels. Implementation of the education model in pre-selected Cabinda schools will begin with the start of the 1999/2000 school year. An estimated $150,000 will be spent on this project.

- **Buco Zau Teacher Housing Complex**
  Approximately $400,000 is being spent on this project which will provide about ten houses for teachers and school principals for the Buco Zau Elementary and Middle School, being rehabilitated by Cabinda Provincial Government. This is another example of partnership in social-program implementation between Chevron, the Community, and the Provincial government.

- **Sambizanga Elementary School**
  Mid 1999, Chevron and its Block 14 Partners, Sonangol, Total, and Petrogal, handed over to the Ministry of Education the reconstructed Sambizanga School, located in the highly populated Luanda suburb of Sambizanga. This is the fourth school Chevron and its Block 0 and 14 have refurbished in Luanda in the past year.

- **Shoe Shine Stands**
  Chevron and its partners inaugurated three-shoe-shine stands in Luanda. The stands will provide business experience to 36 of Luanda's street kids and physically challenged youths. After a six-month observation period, the kids who demonstrate business acumen will be assisted by the Angolan NGO AMPODEC to open their own shoe shine businesses. Chevron/Association contribution was $50,000, part of which will used to help develop business/people skills. Minister for Social Welfare attended the ceremony.

Angola Business Development Examples

- **Southern Africa Enterprise Development Fund Loan**
  Through Chevron's Business Development Department's effort, Tecnocab, a local Cabinda firm, will receive a loan for $350,000 from the South African Enterprise Development Fund (SAEDF). This is the first time SAEDF has provided a loan to an Angolan firm in Angola. Chevron is committed to seeking this type of funding opportunities for Angolan businesses.

- **Reverse Trade Mission**
  Working with the U.S. Trade & Development Agency, Chevron has taken the lead in sponsoring the first ever, Angolan Reverse Trade Mission to the U.S. The purpose of the mission was to introduce Angolan agricultural business owners to their U.S. business counterparts and government agencies. The mission provided the opportunity for Angolan participants to establish relationships for technical assistance, finance, marketing, and future work. The mission began in Florida on October 18, 1999 with stops in Georgia, Louisiana, New York, and Washington D.C.

- **Lobito Fabrication Yard**
  To assist with the development of the local economy, Chevron was instrumental in initiating the creation of the Lobito Fabrication Yard, run by a consortium of Angolan design, engineering, and fabrication companies working in partnership with Chevron. Chevron contracted the Yard to construct two new offshore platforms – the first built at the Yard. The project created 400 direct construction jobs for the local economy and twice that number of jobs in related activities.

DEMOCRATIC REPUBLIC OF CONGO (DRC)

Chevron has been active in the DRC since 1959 and is operator of the country's offshore hydrocarbon resource. Continuous production began in the offshore concession in 1975 and currently averages over 17,000 barrels per day. Despite the rebel invasion of August 1998 in the coastal region of Muanda area where Chevron operates, production activities have never been disrupted. To further demonstrate Chevron's commitment to the economic development of DRC, the company amended its concession for an additional twenty years. This new extension will become effective in 2003 when the current concession will expire. The partnership for this concession is made up of Chevron Oil Congo (D.R.C.) Limited 50 percent, Teikoku Oil (D.R. Congo) Company Ltd. 32.28 percent, and Unocal Congo (DRC) Limited 17.72 percent.

DRC: Community Development Examples

Although the scope of our DRC operations is relatively small in comparison to other African nations, Chevron still strives to make a community impact. A few examples follow:

- **Health and Education**
  Health and education in the communities near the operating site are the focus of Chevron's social investments.

- **Muanda Infrastructure**
  Chevron has renovated the only major hospital in the city of Muanda and is undertaking major projects for the improvement of health condition in the communities, including its participation in a national campaign to eradicate polio.

- **Electricity**
  Chevron continues to provide maintenance and spare parts to electricity generation equipment for the town of Muanda

REPUBLIC OF CONGO

Chevron is by far the largest U.S. investor in the Congo. To date, the company has invested more than $1 billion in the country. The company currently participates in three licenses in areas offshore Congo, adjacent to Chevron's concession in Cabinda: the Haute Mer license where Chevron holds interests in the Nkossa and Moho fields (Elf operator); the Marine VII license in which Chevron holds an interest in the Kitina and Sounda fields (Agip operator); and the Mer Profonde Sud license which Chevron acquired a 15 percent interest in January, 2000.

First oil for the Nkossa field began in June 1996 and is currently producing about 80,000 barrels of oil and LPG per day. Nkossa's production centerpiece is an innovative 71,000-ton concrete barge that acts as a floating gas/oil processing plant and reinjection facility. Also located in the Haute Mer license are the Moho and Bilondo fields, two deep water discoveries where studies are in progress for the evaluation of the fields.

North of the Nkossa and Moho/Bilondo fields, the Kitina field came on stream in December 1997 and is currently producing 43,000 barrels of oil per day.

The 1,300 square-mile Mer Profonde Sud exploration permit is located adjacent to both Angola's deepwater Block 14 and Congo's Haute Mer Permit. Elf, the operator of this deepwater block, is currently pursuing an exploration drilling program as part of it phase 1 commitment. Partners include Elf (operator, 25%), ExxonMobil (30%), Shell (15%), Total-Fina (15%).

Congo: Community Development Examples

- **University of Brazzaville**
  As part of Chevron's overall operational commitments in Marine IV exploration block, Chevron is contributing $2 million for the reconstruction of the University of Brazzaville. This two-year contribution will go towards rebuilding the Faculty of Sciences facilities damaged during the 1997 civil war. As Congo's only university, this project is critical to the future of Congo's youth.

- **Medical Supplies**
  In the Kouilou region, where the Chevron's office is located, Chevron financially assists numerous local organizations and provides yearly distribution of medical supplies to local hospitals.

NIGERIA

With a 39-year history of doing business in Nigeria, Chevron Nigeria Limited (CNL) operates on behalf of its joint venture partners various onshore and offshore concession areas totaling some 2.3 million gross acres. Due to OPEC mandated production volumes, total average production from these fields at the end of 1999 was 420,000 barrels of oil per day.. Chevron is also actively exploring 5 blocks totaling 3.5 million acres in the Benue Trough area in northeastern Nigeria. Additionally, Chevron participates in five Elf-operated blocks: three in the Benue Trough and in two deep-water blocks in the eastern Niger Delta area.

Chevron is pursuing the long-term, multi-phase Escravos Gas Project (EGP), which is the first major associated gas project of its kind in Nigeria. Execution of this project is playing a key role in eliminating the flaring of gas produced in association with crude oil production. The $550 million first phase of this project was completed and came on stream in May 1997 with export of the first 30,000 metric tons of LPG (334,000 barrels of oil equivalent) to the world market in September 1997. The nearly completed second phase is due on stream in the middle of 2000 and will nearly double the capacity of the project to some 285 million standard cubic feet of gas per day. EGP 3 would process additional 400 MM standard cubic feet of gas per day into LPG (10,000-12,000b/d) and condensate (10,000 b/d) Chevron's Gas to Liquids project would provide a dedicated market for the lean gas from EGP 3. Chevron's efforts with the South African company Sasol on a proposed 30,000 barrel per day gas-to-liquids plant (EGTL) adjacent to the Escravos Gas Plant has positive economic and environmental implications as well, by creating environmentally superior liquids fuels as an alternative to dirtier burning diesels.

With EGTL/EGP 3, CNL plans to employ an additional 250-300 Nigerians when the plants are commissioned. During the construction phase, EGTL/EGP 3 would provide temporary employment for about 4,000 Nigerians. The GTL project further enhances regional stability via the political and business links between two of sub-Saharan Africa's most important countries – Nigeria and South Africa. The project becomes a cornerstone for future projects on the continent and worldwide, thereby establishing other regional cooperative projects as stability anchors.

An additional component to Chevron's gas commercialization strategy is the planning and construction of the West African Gas Pipeline. Once completed in 2002, this $400 million regional infrastructure project will provide Nigerian natural gas to power-generation customers in Ghana, Benin, and Togo. This first-of-its kind regional project is bringing four countries together for a commercial development project and, as such, enhances regional stability and cooperation. WAGP will provide low cost, clean and sustainable fuel for reliable power generation in Ghana and, as markets develop, Benin and Togo. The provision of clean fuel to Ghana will provide an environmentally friendlier power solution, supplanting some other power sources currently in use to address the county's power deficit. This delivery of environmental gains at the discharge end of the pipeline is done via another environmental gain – the use of previously-flared Nigerian gas as feedstock to the pipeline.

Niger Delta

Ethnic disturbances have increased in Nigeria's Niger Delta region. Reportedly, 1,000 people have been killed resulting from inter-ethnic rivalries since last year. Oil production operated by the international oil companies in the region has also been disrupted on several occasions, in large part because of a growing frustration among the communities with the government for not providing much needed infrastructure improvement in the Niger Delta. However, we remain hopeful that a peaceful solution through dialogue between the communities and the government can be reached, and we have encouraged all parties to meet to discuss the issues. We understand that the highest levels of the Nigerian government are aware of the large-scale, long-term social investment needs of these communities. Recent reports indicate that the government is prepared to work towards a positive resolution, and we are encouraged by President Obasanjo's recent commitment to spend $300 million annually on social development projects in the Niger Delta. We strongly support the government's commitment and will ensure that our own ongoing social investments with our host communities are in alignment with that of the government's.

Nigeria: Community Development Examples

- **The Western Niger Delta Development Program**
  Beginning in 2000, Chevron has committed to a 5-year, $1 million per year project called The Western Niger Delta Development Program. This project seeks to address critical social, economic and developmental problems in the Delta by initiating skills acquisition training, micro credits for establishment of small businesses, basic education and teacher training, and health education. The goal of this expanded project is to train and educate a total of 1,000 people in our communities.

- **Technical Skills Acquisition Project for Community Youth**
  Unemployment in Nigeria is significant, and even more accute in the remote, rural, riverine communities of the Niger Delta areas where most of Chevron's operations take place. Beginning in 1996, in partnership with the International Foundation for Education and Self-Help (IFESH) and the Nigerian Opportunities Industrialization Centres (NOIC), the Chevron/NNPC Joint Venture established a Skills Acquisition Project in Warri, Delta State. Starting in March 1997, 30 youths from 24 communities began a one-year paid training program learning skills in metal work and office support and then provided the best performers with the necessary equipment to start working. Encouragingly, of the 30 in the graduating class, half had found paid employment within four months of graduating. The second group of 40 trainees began in March 1998 and graduated in November 1999, with a third set of 40 trainees due to begin immediately. Chevron has plans to expand the project to accommodate up to 120 trainees annually. Through 1999, Chevron will have invested a total of $600,000 in this project.

- **Ugborodo Cottage Hospital**
  This 18-bed facility was built by Chevron in 1993. Before it was tragically burned down during inter-ethnic conflicts in 1999, it was one of the best non-fee paying healthcare facilities in Nigeria. The 24-hour electricity and water are supplied free of charge by Chevron and all medical supplies are also provided by Chevron. Residences for staff are provided and maintained by the company, and staff salaries were also augmented by Chevron. In 1998, the hospital attended to nearly 18,000 patients and delivered 56 babies. Chevron is committed to rebuilding the facility for the benefit of the people in the area.

- **Benikrukru Fishfirm and Poultry Project**
  In association with Enterprise for Development International, this project was created for the Benikrukru community located near the Abiteye flowstation. Here, Chevron has set up a fishfarm and poultry project that will earn extra income and provide jobs for the community. So far, over $24,000 of income has been generated from egg sales alone in 1997 and after project management and skills development training is completed , the project will be handed over to the community to continue its operations.

- **Water Ambulance Project**
  Due to the local geography, access to adequate health facilities in the Niger Delta is difficult. To help assist in delivering health services to remote locations, Chevron plans to create a mobile health clinic for use in the swamp in our western operations.

- **Infrastructure Development**
  This year, Chevron plans to build several blocks of six classrooms each in different community, complete with furniture. Chevron will also construct three-room bungalows for teachers' quarters, science blocks, and fully equipped laboratories. Other projects include the construction of steel jetties, town halls and civic centers, and water projects in nine communities.

- **Scholarships**
  Chevron provides scholarship programs exclusively for our areas of operation and covers secondary and university educational institutions. These scholarships benefit approximately 3,000 students each year.

- **Power and Water**
  Chevron has committed to providing power and water to all communities around our operations over the next 4-5 years. Electricity supply and water would be provided, in many of the cases, direct from our facilities to the communities. It is expected that this would significantly improve socio-economic activities in these communities.

Fact Sheet: Sudan and Oil

Facts about the Pipeline:

- Began its shipments in August 1999
- 936 miles long (steel)
- Longest pipeline in Africa
- Placed one yard beneath ground
- Completed in a year for $1.2 billion
- Oil to be exported from Port Sudan on the Red Sea
- Oil fields being developed in towns Heglig, and Unity.
- Oil being pumped is in a zone that both "the North and South claim..fall in their historical zones."

On September 19, 1999 the pipeline was bombed by the Rebels. There is concern that such attacks will continue in the future. Investors such as Talisman Oil of Canada have "built regular repairs [such as attacks] into the cost of doing business in a place like Sudan."

Initially, Sudan expects revenues of over $200 million a year as result of the pipeline, which will constitute about 20 percent of the economy.

Plans exist raise production to150,000 bbl/d from the current 10,000 bbl/d. Full production of the two fields will yield 450,000 bbl/d. The government plans for about 1 million bbl/d for all of Sudan by 2005.

Before building the pipeline Sudan spent about $400 million per year on imports of oil. The Sudanese Minister of Energy claims that the pipeline will end Sudan's dependancy on foreign oil.

25 percent of the pipeline is owned by Talisman Energy Inc.,the largest independent oil company in Canada. It is part of the **Greater Nile Petroleum Operating Company** (GNPOC) a consortium of foreign oil companies. Other investors include: **The China National Petroleum Company** (40%)**Petronas of Malaysia** (30%), **Sudapest** (Sudanese national oil company) (5%)

The US has legitimate security concerns over China's large stake in the development of Sudan's oil supply. In addition to China investing in a state sponsor of terrorism, it may use the oil to shore up its power by developing an oil source outside the American sphere of influence.

The greatest concern by members of the international community, such as the US Government, as well as human rights groups, is that profits from oil will be used by the North in order to continue its war on the South. The war has already killed about 2 million people.

Talisman has come under fire for its investment in Sudan. Money from oil revenues are being used for gross human rights violations, including enslavement of the southern population. Talisman contends that the practice is not slavery but in fact a "tribal custom...used to settle disputes."
The company claims it has been given assurances by the Sudanese government that revenue will be used for "development-oriented projects." Thus, Talisman has taken the position that it can best influence government behavior through its investment rather than by pulling out of Sudan.

Concerned investors, such as the State of New York are deliberating whether or not to divest millions of dollars of Talisman stock it owns as part of the state's pension fund. New Jersey has already sold 680,000 shares of shares it owned of Talisman from its pension funds.

Currently Sudan has been designated as one of the seven state sponsors of terrorism.
An Executive Order by President Clinton (13067) on November 4, 1997 imposed "comprehensive economic sanctions" on Sudan. Gum Arabic is not covered by this sanction.

Estimated Crude and Products Imports By the U.S. From Leading Supplier Countries

November 1999

	Imports (MB/D)	% of Total Imports	% of Domestic Product Supplied
1. Canada	1,588	16	8.3
2. Saudi Arabia	1,350	13.6	7.1
3. Venezuela	1,205	12.1	6.3
4. Mexico	1,200	12.1	6.3
5. Iraq	717	7.2	3.8
6. Nigeria	588	5.9	3.1
7. Colombia	416	4.2	2.2
8. United Kingdom	333	3.4	1.8
9. Angola	288	3.1	1.6
10. Norway	288	2.9	1.5
Other	1,932	19.5*	10.2
Total	9,924	100	52.2
OPEC Countries	4,372	44.1	23
Persian Gulf Countries	2,294	23.1	12.1

*These include Gabon, Equatorial Guinea, Congo-Brazzaville, and Algeria

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PETRO FINANCE

J. Robinson West
Chairman
Petro Finance

J. Robinson (Robin) West is the Chairman of the Board and founder of Petro Finance.

As founder and chairman, Robin has gained a unique perspective on the international petroleum industry. He has advised Chief Executives of leading international oil companies and national oil companies on corporate and international gas and power strategy, acquisitions, divestitures, and investor relations.

Before founding Petro Finance in 1984, Robin served in the Reagan Administration as Assistant Secretary of the Interior for Policy, Budget and Administration (1981-83), with responsibility for US offshore oil policy. His duties included preparation of the Department's $6 billion budget and general administrative oversight of its 75,000 employees. Robin conceived and implemented the five-year Outer Continental Shelf (OCS) Leasing Schedule and managed the $14 billion per year OCS policy, the largest non-financial auction in the world at that time. Between 1977 and 1980, he was a First Vice President of Blyth, Eastman, Dillon & Co., Inc., an investment banking firm and was also a member of the firm's operating committee. Prior to that, he served in the Ford Administration as the Deputy Assistant Secretary of Defense for International Economic Affairs (1976-77) and on the White House Staff (1974-76). In 1976, he received the Secretary of Defense Medal for Outstanding Civilian Service.

Robin is a member of the Council on Foreign Relations and the International Institute for Strategic Studies, a trustee of the German Marshall Fund of the United States and of the French American Foundation. He is President of the Wyeth Endowment for American Art. He has served as a trustee of the $ 3 billion Trans-Alaska Pipeline Liability Fund, as a member of the Chief of Naval Operations Executive Advisory Panel, on the Industry Policy Advisory Committee on Multilateral Trade Negotiations of the US Trade Representative, and on the National Advisory Committee on Handicapped Children. Robin was a Presidential Representative to the Yemen Arab Republic in 1987 and was appointed by the President to the National Advisory Committee on Oceans and Atmosphere in 1977.

Robin West received a BA degree with advanced standing from the University of North Carolina at Chapel Hill and a J.D. from Temple University. He is a member of the Pennsylvania Bar. Robin is married to Eileen Shields West, a journalist, and has four children.

Statement of Paul Michael Wihbey,
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Before the
Subcommittee on Africa
Committee on International Relations
U.S. House of Representatives

Thursday, March 16, 2000

(presented, Monday, March 27, 2000)

Introduction:

The last several years have witnessed an incremental and gradual American awakening to the significance of **Sub-Saharan Africa** at humanitarian, political and economic levels.

Official U.S. programs and initiatives such as The African Crisis Response Initiative, The African Growth and Opportunity Act 1999, The African Center for Security Studies, the Department of Energy's African Energy Initiative, and the Tuscon Africa Energy Ministers Conference, as well as various bilateral commissions, highlight a growing awareness amongst policy planners that Sub-Saharan Africa is an area of increasing American involvement and interest.

Sub-Saharan Africa represents a massive continental landmass, with a population of 600 million, abundant natural resources and 48 countries with mostly fragile economic and political institutions. Within this geopolitical landscape, one particular sub-region, **West Africa**, is the focus of this presentation. Also known as the **Gulf of Guinea** and **Western Equatorial Africa (WEA)**, this region stretches from the Ivory Coast to Angola and is composed of several countries that boast significant petroleum resources. Nigeria, Chad, Equatorial Guinea, Cameroon, Gabon, Congo Republic (Brazzaville) and Angola constitute an emerging storehouse of oil and natural gas whose potential is only now being recognized. Already, **WEA** provides the U.S. about 1.3 million barrels day (mbd) or 13.5% of total U.S. crude oil imports equaling or surpassing U.S. oil imports from Saudi Arabia and with volumes to the U.S. several times those from Kuwait. Total **WEA** oil production is 3.7 mbd; by comparison Iran produces 3.5 mbd, Kuwait --2 mbd, and Venezuela--2.8 mbd.

Nigeria is the world's sixth largest oil exporter and the fifth ranked provider of crude (700,000 b/d) to the U.S.. Alongside Royal Dutch/Shell and Italian ENI, US companies like Exxon, Texaco and Chevron have major stakes in Nigeria. With a DOE-estimated 200 oil fields yet to be explored, 30 billion barrels (bb) in proven reserves and a crude that provides the high gasoline yield favored by US refineries, Nigeria is a natural resource powerhouse awaiting serious capital investment. According to Nigerian energy officials, Nigeria plans to increase its reserve base to 40 bb and production to 3.5 to 4 mbd by 2010.(1) Nigeria's current oil production of 2 mbd is equal to that of Kuwait. Nigeria also has the 10^{th} largest gas reserves in the world.

Angola is the next largest Sub-Saharan producer and sixth largest supplier of crude (60% of total production) to the U.S. It is currently producing close to 800,000 b/d and hopes to reach 1 mbd by the end of 2000, and 1.3 mbd within the next five years. Reserves have increased from 3.4 bb to 10 bb within a span of three years.(2)

Smaller producers ***Gabon, Cameroon, Equatorial Guinea*** and ***Congo Republic*** have a combined production of 830,000 b/d. In Equatorial Guinea, the main production company, Mobil has been tripling its output every year since starting operations in 1995 to its current level of over 100,000 bd.
DOE estimates that ***Chad's*** untapped petroleum deposits could reach over 200,000 bd over the next five years. Chevron has announced that it would join an Exxon-led consortium to build a $ 3.5 billion, 640 mile pipeline from the Chad oil fields to Cameroon's Atlantic coast.

Not only do the various individual countries have very significant exploration, development and production potential, but regional energy development is very promising. A recent study in The Oil &Gas Journal of **WEA** off-shore oil prospects concluded, "*West Africa offers the most exciting prospects of all the world's deepwater hydrocarbon plays. Our study indicated that over the period to 2002, about $ 17 billion of capital expenditure will be invested there....West Africa has only one deepwater field producing but a growing list of major finds awaiting development.*" (3)

Despite **WEA's** emergence as a serious player in the global energy market, the conventional wisdom towards this area's significance to Washington seems still to reflect an August 1995 Department of Defense Report on US Security Strategy for Sub-Saharan Africa which stated, "*...ultimately we see very little traditional strategic interests in Africa...The Administration is committed to maintaining a leading role in Africa despite the lack of vital interests.*" (4)

It is the contention of this presentation, that the Western Equatorial region of Sub-Saharan African is, in fact, an area of U.S. vital interest, and that this region is also of increasing strategic importance to the United States as it applies to American energy security needs.

WEA as an area of vital interest to the United States:

With large-scale U.S. private-sector investment committed to numerous energy development projects, increasing numbers of Americans working and visiting in region and more U.S. Government engagement with **WEA** countries, it is appropriate for the United States to reconsider its level of official interest in the western part of Sub-Saharan Africa. The consensus in U.S. strategic assessment of global affairs has traditionally placed Sub-Saharan Africa at the lower end of U.S. interest/engagement, because of its marginal impact on the well-being and security of the United States. The net assessment is one that tends to treat Sub-Saharan Africa as a regional whole, characterized by political and economic uncertainty and prone to instability and conflict.

While there is much validity to such evaluations, there also tends to be a lack of specificity and direction at the sub-regional and national level in terms of defining the U.S. interest. In fact, only South Africa, among the four dozen Sub-Saharan states has been the focus of sustained American attention and for reasons having to do more with our values than classical issues of pragmatic state to state relations.

WEA offers U.S. policy planners in Congess and the Administration a new and dynamic set of West African geostrategic conditions, that in the opinion of this presentation, makes this region of Africa an area of vital importance to the United States with significant strategic dimension.

The two outstanding issues that support such a contention are;
1) WEA's contribution to U.S. energy security policy, and **2) Nigeria's** importance to a US policy of regional engagement.

WEA and US Energy Security Policy

Since the Arab oil embargo of 1973, the global oil market has been dramatically transformed. Lack of supply has been replaced by an abundance of supply, diversity of local suppliers has replaced singular regional suppliers, and technological innovations have opened new markets for exploration and production with lower costs being passed on to consumers. (Despite the recent OPEC effort to cap supply and hike prices, after adjusting for inflation, the price of retail gasoline is 70% cheaper than in 1981). With US oil-expenditures of GDP declining from 8.5% in 1980 to 3% in 2000 and inflation hardly impacted by OPEC's 200% price increase in the past year, the real issue for American energy security planning is not the cost of oil imports, but the security of supply. Within this context, **WEA** ought to be viewed as an intregal component of U.S. energy security planning for the following reasons:
---Along with other suppliers in South Atlantic (Mexico, Gulf of Mexico,Venezuela, Ecuador, Colombia), the **WEA** has created a new transregional source of oil exports to the United States that outpaces Persian Gulf supplies by more than 2:1. In 1998, imports from the South Atlantic producing countries totaled 3mbd compared to 1.6 mbd from the Persian Gulf. This diversity of massive supply is the operational premise to the notion that security of supply is the paramount consideration of U.S. energy security policy. It is therefore, within this context, that **WEA** is of vital importance to the U.S.. The production of Sub-Saharan African oil over the last decade has dramatically altered the balance of power in the global oil market. Thanks to high grade, relatively inexpensive African oil coming online, the American public is no longer strategically dependent on Persian Gulf supplies

nor subject to an accompanying political agenda which may be inimical to America's best interests.
The idea that **WEA** oil has contributed to neutralizing the worst aspects of actual or perceived dependency on Persian Gulf oil, is in and of itself, a tremendous asset to the United States. There can be little doubt that **WEA's** recent emergence as a major energy producer and exporter has provided the United States with increased leverage in its negotiations with OPEC. With lower transit and insurance rates thanks to the proximity of the **WEA** oil fields, U.S. consumers are further rewarded with savings by 'buying African'.

However, beyond the tangible contributions of additional and reasonably priced petroleum, **WEA** also offers a more benign and hospitable climate embellishing American energy security considerations. Unlike a number of other oil-producing states and regions, neither anti-Americanism, nor terrorism, nor economic statist dogma characterizes the regional attitude to the United States. To the contrary, Americans are well received and U.S. investment, particularly in the energy sector is recognized as one of the soundest strategies to build the necessary infrastructure required for eventual diversification of the economic base.

With assistance and support from the United States Government, American NGO's and the American private sector, a rising oil power like Nigeria, can become the regional stabilizer. Such a status, with capability backing intention, would help all the countries of the region, producers and non-producers alike,secure the proper political and investment climate, in order to maximize their revenues for programs of economic development and democratic reforms.

Nigeria and US Engagement

---With 110 million people, significant mineral deposits including oil and natural gas, agricultural and manufacturing capabilities, Nigeria is the dominant power in West Africa. After years of economic mismanagement and corruption by a military dictatorship, Nigeria has been provided a window of opportunity with the election of President Olusegun Obasanjo to emerge as a strong and functional market democracy. Such a prospect is in the American national interest since a strong Nigeria, in partnership with the United States, would play a pivotal role in stabilizing the entire Gulf of Guinea region. A new West Africa regional security architecture centered on Nigeria, and supported by the U.S., could embrace between 200-250 million people, secure large-scale investment capital, deter traditional destabilizers such as Libya and North Korea, and prevent the proliferation of arms including missile delivery systems.

Nigeria, more than any other country in Sub-Saharan African, affords the United States a platform of engagement that meets U.S. security interests to realize a reduction in the levels of political instability and conflict that has plagued the region for decades. A security-oriented engagement with Nigeria conditioned with a bilateral partnership geared towards essential market reforms is the incentive needed for creating a positive investment climate.

With 90% of its export earnings and 80% of government revenue derived from oil, Nigeria must not repeat the mistake of Persian Gulf producers and fail to diversify its economic base. Such a future, given Nigeria's many constituencies and still developing national institutions, could lead to a level of political and social unrest, that might force the United States, directly or otherwise, to intervene at significant cost. Although such scenarios always need to be contemplated, the current security, economic and political conditions in Nigeria, if properly nurtured and sustained, can help avoid the worst case scenario by creating a healthy climate for investor confidence. Large-scale Nigeria-based regional infrastructural projects such as the Chevron-led $400 million West Africa Gas Pipeline are the building blocks for new era of development in a sub-region of Africa whose opportunity for modernization is on the immediate horizon.

This testimony strongly asserts that the Nigeria's security and stability, progress towards market democracy, and contribution to regional peace and prosperity is in the vital American interest. When combined with issues relating to the free and unfettered flow of increasingly large volumes of Sub-Saharan African petroleum supplies to the U.S. and Western Europe, WEA ought to be considered by American policy planners as a region of vital and strategic interest to the United States.

Policy Suggestions and Recommendations:

Although the following suggestions will be restricted to security issues, it is critical that any review or revision of Sub-Saharan Africa policy deal with the commercial and economic relationships between the U.S. and WEA countries. Accordingly, the legislative commitment of the US House of Representatives, embodied in The African Growth and Opportunity Act 1999 is to be applauded. It is hoped that the Act will be reintroduced in the near future. Its provisions to develop plans for a U.S.-Africa Free Trade Area, promote market-based economic development and encourage inflows of foreign investment would serve as the basis for a more rigorous expansion of the energy sector and expanded opportunities for American and African business partnerships.

1) Oil Supply Routes and US Lines of Command:
As **WEA** emerges as a new energy center of gravity and a vital U.S. interest, the borders of the regional commanders-in-chief (CinC) need reassessment. Currently, Africa falls under the responsibility of U.S. European Command (USEUCOM) while the South Atlantic falls under the responsibility of U.S. Atlantic Command (USACOM).
"The U.S. now needs a clear and seamless organization that reflects the new requirements of that region...A seamless military area of responsibility in the South Atlantic region with an east-west orientation rather than the traditional north-south orientation could promote a sound and consistent policy focus that supports vital U.S. interests." (5)
The creation of a 'South Atlantic' Command would not only better reflect the geostrategic realities of the Post Cold War era, but would also permit the U.S. Navy and armed forces to more easily project power to defend American interests and allies in West Africa. The new command would also maintain and safeguard increasing maritime shipments of petroleum products from producing states with little or no bluewater naval capabilities.

2) Military Forward Presence and Facilities:
A primary goal of any deployment of U.S. military assets is to foster conflict prevention and sustain contingency planning. A conspicuous military forward presence and engagement is essential not only to deter potential threats to U.S. interests but also to implement a decisive strategy for regional stability;
U.S. engagement in West Africa could take the form of;
---increased naval visits to West African ports and greater military to military contacts;
---selecting a permanent home for The African Center for Security Studies,
---establishing a homeport in the Gulf of Guinea, possibly on the islands of the Republic of Sao Tome and Principe centered in the Gulf of Guinea.
Facilities needed to sustain a forward military presence such as petroleum support facilities, warehousing, deepwater port and air strips would provide the United States with a below the horizon capability. Presence of a U.S. base in the Gulf of Guinea would signify a clear and long term commitment to the region further enhancing U.S. credibility;

3) Regional Security Doctrine:
With **WEA** emerging as a global oil power, most Sub-Saharan states UN-classified as 'least developing countries', and local African militaries disorganized and ineffective, the Department of Defense, Department of Energy, State and Congress along with their Nigerian and other **WEA** counterparts need to articulate a U.S./Nigerian-led regional security doctrine. Long sought economic development and political reform will be difficult to attain until Africans and Americans combine their respective expertise to formulate a single coherent overarching strategy to deal with a number of issues that could pose obstacles towards **WEA's** economic and political recovery.

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