

making use of these foreign currency holdings.

SOCIAL SECURITY AMENDMENTS OF 1965—AMENDMENTS

AMENDMENT NO. 256

Mr. DOUGLAS submitted amendments, intended to be proposed by him, to the bill (H.R. 6675) to provide a hospital insurance program for the aged under the Social Security Act with a supplementary health benefits program and an expanded program of medical assistance, to increase benefits under the Old-Age, Survivors, and Disability Insurance System, to improve the Federal-State public assistance programs, and for other purposes, which were referred to the Committee on Finance and ordered to be printed.

NOTICE OF HEARINGS BY COMMITTEE ON LABOR AND PUBLIC WELFARE

Mr. McNAMARA. Mr. President, for the information of the Senate, I would like to announce the following schedule of hearings on bills pending before the Senate Labor and Public Welfare Committee and assigned to subcommittees which I chair:

June 22 through 25, the Subcommittee on Labor will hear witnesses on S. 256, repeal of section 14(b) of the National Labor Relations Act; and on S. 731 and H.R. 5883, amendments to the bonding provisions of the Labor-Management Reporting and Disclosure Act.

July 6 through 9 and 12 through 16, the subcommittee will hear witnesses on S. 1986, extension of coverage of minimum wage and amendments to the overtime provisions of the Fair Labor Standards Act.

Meanwhile, the Select Subcommittee on Poverty, which has pending S. 1759, amendments to the Economic Opportunity Act, will hear witnesses on June 28 and 29.

NOTICE OF HEARINGS ON DOMESTIC AND FOREIGN SURPLUS PROPERTY PROGRAM

Mr. GRUENING. Mr. President, as chairman of the Subcommittee on Foreign Aid Expenditures of the Senate Committee on Government Operations, I wish to announce that that subcommittee will hold hearings on the domestic and foreign surplus property program on Thursday, June 10 at 2 p.m., and Friday, June 11 at 10 a.m., in room 3302 of the New Senate Office Building. Future hearings will be held on this subject and those who desire to testify later should so notify Mr. Glenn Shriver of the staff of the Senate Committee on Government Operations.

ADDRESSES, EDITORIALS, ARTICLES, ETC., PRINTED IN THE APPENDIX

On request, and by unanimous consent, addresses, editorials, articles, etc., were ordered to be printed in the Appendix, as follows:

By Mr. SMATHERS:
Editorial entitled, "Santo Domingo," published in the Washington Daily News of June 4, 1965.

U.S. POLICY ON VIETNAM—ADDRESS BY THE VICE PRESIDENT

Mr. McNAMARA. Mr. President, on June 1, at Michigan State University, in East Lansing, Mich., Vice President HUBERT H. HUMPHREY delivered an address on the administration's position in the Vietnam conflict.

In his usual able manner, the Vice President underscored the basic reasons governing the involvement of the United States in southeast Asia.

I ask unanimous consent that the text of his address be printed in the RECORD.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

ADDRESS BY THE VICE PRESIDENT AT MICHIGAN STATE UNIVERSITY, EAST LANSING, MICH., ON JUNE 1, 1965

It is a pleasure to accept the invitation of the Michigan State People-to-People Committee to discuss U.S. policy in Vietnam.

Coming here today from Washington—once aptly described as "a city of southern efficiency and northern charm"—it is refreshing to return to the atmosphere of excitement, of expectation and love of learning that is characteristic of a great university.

Action is to the politician what reflection is to the scholar—and as a political leader, it is a rewarding experience to confront the enthusiastic questioning of the student and the careful scrutiny of the professor.

It is a welcomed—if risky—experience.

It is welcome, because nowhere are solid arguments and perceptive judgments more appreciated.

It is risky because nothing chills nonsense like exposure to the brisk air of a university.

The subject which I am about to discuss with you is appropriate for this audience because it pertains to war and peace.

No group should be more interested in war and peace than those who will be expected to bear the brunt of the fighting if war should come.

It is therefore a natural and healthy phenomenon that war and peace in southeast Asia should have become the subject of lively debate and vigorous discussion on university campuses across the country.

As the debate on U.S. policy in Vietnam has flourished during the past 6 months, the United States has continued to be challenged to match deeds with words in opposing aggression and defending the freedom of a friendly nation.

We have met that challenge.

Our firm and decisive response to naked aggression against South Vietnam has demonstrated to our friends that our power remains pre-eminent and our devotion to freedom firm—and to our foes that the United States is no paper tiger.

The measured application of American power proves that we are prepared to meet aggression in whatever form, that we shall not be forced to choose between humiliation and holocaust, that the firmness of our response in no way diminishes our devotion to peace.

Our action in Vietnam is a part of the continuing struggle which the American people must be prepared to wage if we are to preserve free civilization as we know it and resist the expansion of Communist power.

It is a further indication that the breakup of the bipolar world, which has characterized the international relations of the past two decades, and the easing of tensions between East and West following the nuclear

test ban, may have changed the pattern of U.S. involvement in world affairs, but it has not diminished it.

We retain the role of leader of the free world that we inherited at the end of World War II, and in that role our responsibilities remain worldwide. In that role our responsibility extends to distant Asia as well as to countries on our doorstep.

President Johnson has made it unmistakably clear that we intend to meet those responsibilities.

It was in the role of defender of the free world that we originally made a commitment to Vietnam in 1954.

It was in this role that three administrations maintained that commitment.

Although as students of history you may debate the wisdom of the original decision to take up the responsibilities which the French relinquished in 1954, this question has little relevance for the policymaker today.

President Johnson in his Baltimore speech of April 7 and his Washington speech of May 13 spelled out those alternatives and which we have chosen as the basis of our policy.

They are three:

First. In the face of armed conflict, in the face of continued aggressions, we will not withdraw, we will not abandon the people of Vietnam. We shall keep our word.

Our refusal to withdraw is based on our recognition that sudden withdrawal from Vietnam would only weaken the position of free societies in Asia—which could only regard withdrawal as a loss of interest by the United States in the area and an enticement to accommodate themselves to Communist China.

In refusing to withdraw we reject the belief that by some Hegelian law of inevitability, China is destined to swallow up all of Asia. And I find it curious that proponents of the inevitability theory so often combine it with advocacy of the Titoist doctrine that Vietnam would become an independent neutral nation if we would withdraw our military forces. The arguments are absolutely incompatible.

We refuse to withdraw in the certain knowledge that withdrawal would mean the betrayal of those who have opposed the spread of communism in southeast Asia, would mean certain death or exile.

Finally, in relation to the Sino-Soviet contest, a withdrawal by us would vindicate the Chinese thesis that militancy pays—and discredit the Soviet thesis of peaceful coexistence.

Second. Recognizing that a political solution of the conflict is essential, we stand ready to engage in unconditional discussions. We have no desire for further military escalation of the war. We stand ready to consider any solution which would bring peace and justice to all of Vietnam, North and South.

I would like to make crystal clear who is in favor of a political settlement and who is opposed, who has offered the olive branch and who has rejected it. President Johnson has affirmed not only our willingness to hold unconditional discussions to end the war, but our ardent desire to do so.

What has been the response of the Communist governments in Hanoi and Peiping?

They have rejected every peace offer from any source. They have spurned the efforts of the U.N. to mediate. They have scorned the offer of the British. They have brushed aside the efforts of the Indian Government. In short—the Communist governments in Hanoi and Peiping have rejected all efforts to restore peace and justice to the people of Vietnam.

Third. We recognize that the people of Vietnam must have a cause for which to fight, they must have hope of a better day. We have made it clear to the people of Viet-

nam that to improve their lives and fulfill their hopes we stand ready to support a massive cooperative development effort—not only for Vietnam but for all of southeast Asia. It is our hope, as President Johnson has said, that "the works of peace can bring men together in a common effort to abandon forever the works of war."

These three principles—honoring our military commitment, a continuing willingness to seek a political solution, and a massive economic development program—remain the bases of our policy.

The struggle in Vietnam has a special significance for the United States as the defender of the free world because it confronts us with a bold new form of aggression—which could rank in military importance with the discovery of gunpowder. I refer to the war of national liberation.

Vietnam offers a classic example of what can be accomplished by militant Communist forces intent on deliberate subversion of a country from within.

There we have seen a Communist state refuse to leave its neighbors in peace. We have seen the infiltration of Communist cadres to strengthen and direct guerrilla warfare in violation of international accords. We have seen the Communists who control and direct the war from Hanoi insist that the war in South Vietnam is internal because many of the Vietcong are South Vietnamese. We have seen them portray the struggle as a civil war—in which the popular forces are arrayed against American imperialism.

It is this new sophisticated form of warfare that is becoming the major challenge to our security, to the security of all free nations. This new warfare is often more dangerous than the old—a war in which the leaders cannot be located, in which the sources of supply cannot be easily cut off, in which the enemy forces are not outsiders but indigenous troops—in which signed truces do not halt the struggle.

The supreme challenge today is to prove to our Communist foes and our freedom-loving friends that the new face of war is no less pernicious than the old, that it can be defeated by those of strong mind, stout heart, and a will of steel. We know now that most Communist regimes do not desire to blow the world to pieces. They prefer to pick it up piece by piece.

How do we successfully meet the challenge posed by wars of national liberation? We need a balanced military force comprising air, sea, and land power. We need maximum flexibility in our forces—making it possible to respond rapidly to any situation. We need men experience in guerrilla and psychological warfare, in all the paramilitary arts that are practiced in wars of national liberation. We must adapt our aircraft and ships to the conditions we find. We must relearn the tactics of ground warfare in a guerrilla setting and adapt our equipment and our weapons accordingly.

Overwhelming military power alone is not an adequate response to wars of national liberation. Since these wars feed on seething social discontent, success in countering them requires a subtle blending of economic aid, political expertise, educational efforts, information and propaganda programs—combined with military power.

Where wars of liberation flourish, the military struggle is but one part of a larger social and political struggle. And these struggles will continue and revolutionary ferment will increase until governments come to power capable of implementing systematic social and economic programs designed to abolish shocking social and economic inequality between the privileged few and the impoverished masses, between glittering capitals and festering slums, between favored urban enclaves and primitive rural areas.

For the masses of the people in the developing countries of Asia who have never

known the benefits of modern civilization, the status quo is no longer a burden to be patiently borne, but an oppressor to be cast off.

The primary responsibility for preserving the independence and security of a country remains with the people and the government of that country. If the people and their leaders have no will to preserve their independence, no outside force can save them. If the government can provide the people with a cause for which to fight, with a program inspiring sacrifice and effort, that government can be capable of defending itself against Communist infiltration and subversion from within. Where subversion from within is supported from outside, as is the case in Vietnam, outside assistance is needed if such a government is to achieve this capability. In many areas of the world, the United States has inherited the role of protector and defender of non-Communist nations which are under Communist assault. It is a role we have not sought. It is often a painful and expensive one. But it is an essential one—both to the security of the non-Communist world and to our own.

As I have noted, in overcoming wars of national liberation no one mode of response is adequate. At this point I would like to call attention to the nonmilitary side of the struggle that is required in this complex situation. My example again is Vietnam. I refer to the little noticed side of the struggle—the struggle for a better life. It is the battle of the Vietnamese people not merely to survive, but to build, to make progress, to move forward.

In the past decade, rice production has been doubled. Corn output is expected to be four times as large next year as it was in 1962. Pig production has more than doubled since 1955.

The average Vietnamese can expect to live only 35 years. Yet there are only 200 civilian doctors. A new medical school we are helping to build will graduate that number of new doctors each year.

Meanwhile, we have helped vaccinate more than 7 million people against cholera and millions more against other diseases. More than 12,000 hamlet health stations have been built and stocked with medical supplies.

In Vietnam—as everywhere—"civilization is a race between education and catastrophe." Education is the foundation of any country's future. For it is impossible to run a government, local or national, to man factories or to enrich the national life without trained and educated people. Elementary school enrollment was 300,000 in 1955—it is five times that number today. Vocational school enrollment has quadrupled. The university population is increasing steadily.

This progress has been achieved against the most appalling odds. It has been made despite the carefully planned and executed program of terror and harassment carried out by the Vietcong.

There is a curious misconception abroad that the Vietcong is a great idealistic movement, a sort of "Indochinese wing of the American Populist Party"—to use Arthur Schlesinger's phrase. In reality, they are, he continues, "a collection of very tough terrorists whose gains have come in the main not from the hopes they have inspired but from the fear they have created."

In the countryside, agricultural stations have regularly been destroyed and medical clinics raided. Malaria control team members have been killed or kidnaped. Village chiefs, schoolteachers and others who represent order and social service have been made special targets by the terrorists.

All told, it is estimated that 10,000 civilian officials have been killed or kidnaped since 1954. If one were to use comparable figures for the United States in relation to population, this would amount to 130,000 officials.

Yet the effort goes on despite these attacks and dangers. Brave and tireless Vietnamese continue to take seeds and fertilizer and farming know-how to the villagers; teachers continue to man the schools; medical teams go into the country despite the clear and always present danger. And at their side—I am proud to say—go American civilian workers. And they, too, have been killed and kidnaped. These men and women, Vietnamese and American—and increasingly of other nationalities—are the unsung, unpublicized heroes of this phase of the struggle. So long as they persevere wars of national liberation can be defeated.

As I understand it, you have decided to participate in this struggle by adopting the hamlet of Long Yen in Tay Ninh Province. This hamlet, 60 miles from Saigon, has vigorously resisted absorption into Vietcong hands. I am told you plan to raise funds—to build a new two-room school, to construct an open-air market and to pay for both a schoolteacher and a health officer. These are things the people of the hamlet themselves have decided they most need and want.

I have heard that word of Michigan State's program has struck sparks in other campuses as well.

This is most encouraging, most inspiring. For the need is so great—not just the physical need, but the need for people to know that other people stand with them. In this fashion you will be helping the Vietnamese people build a future for themselves. You will be working to defeat a new and pernicious form of aggression against mankind.

In assisting independent nations—whether in southeast Asia or in our own hemisphere—there will be required on our part patience as well as courage, "the will to endure as well as the will to resist."

But our willingness to meet our obligation to assist free nations should not be confused with a desire to extend American power or impose American ways.

We do not aspire to any Pax Americana. We have no desire to play the role of global gendarme. Where multilateral organizations are ready and capable of assuming the burden of defending independent nations from Communist assault, of preventing internal rebellions from leading to chaos and anarchy, we welcome their intervention. As we know from recent history, international organizations like the U.N. are not always capable of stepping in quickly. When they are capable we welcome their presence.

Our stakes in southeast Asia are too high for the recklessness either of withdrawal or of general conflagration. We need not choose between inglorious retreat or unlimited retaliation. The stakes can be secured through a wise multiple strategy if we but sustain our national determination to see the job through to success.

Our Vietnamese friends look forward to the day when national independence and security will be achieved, permitting the withdrawal of foreign forces. We share that hope and that expectation.

But we know that that hope cannot be achieved if the United States shirks its obligations, if it attempts to withdraw from the world, to retreat from its responsibilities as a world leader. If we refuse to share the burden of preserving the peace—who will take it on? If we refuse to share the burden of defending free societies, who can guarantee their survival? If we will not join in the defense of democracy, what are its future prospects?

I fail to see the logic of those who recommend that we withdraw from the world. If we are concerned about our national security in all its aspects, we cannot ignore Asia because Europe has been made secure. We learned by hard experience in Europe that involvement is the price of resisting aggression, that appeasement is not only morally wrong, but a threat to national security.

In a complex world, we must practice patience and perseverance—patience to defend free nations in distant Asia as well as those close to home. We must not be lured by quick and easy solutions. We must not abandon our goals because of frustration. We must continue to pursue the goal of peace and freedom—acknowledging both the prospects of success and the consequences of failure. If we act with vision and wisdom, we shall not fail.

COMMENCEMENT ADDRESS BY SENATOR PASTORE AT PORTSMOUTH PRIORY SCHOOL

Mr. HILL. Mr. President, one of the ablest and most brilliant men with whom it has been my privilege to serve during my many years in Congress is the distinguished senior Senator from Rhode Island [Mr. PASTORE]. He speaks with moving eloquence, with commanding logic, and with impressive knowledge to stir men's hearts, to challenge their minds, and to inspire them ever onward. On yesterday, Senator PASTORE delivered a commencement address at Portsmouth Priory School, at Portsmouth, R.I. He reminded the graduates that they are the premise and the promise of the America-to-be. His address was a beautiful appeal to the youth of our country to develop to the fullest the talents with which God has endowed them, and to carry on the never-ending struggle for freedom, for peace, and for the service of mankind.

I ask unanimous consent that the address be printed at this point in the RECORD.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

REMARKS OF U.S. SENATOR JOHN O. PASTORE TO PORTSMOUTH PRIORY SCHOOL GRADUATION CLASS OF 1965, PORTSMOUTH, R.I., MONDAY, JUNE 7, 1965

I am honored and happy to be at the Priory—and to be privileged to share your important day.

I feel at home in historic Portsmouth. I have come here as often as I could—and for a selfish reason. My daughter was at Elm-hurst.

This year she, too, says farewell to Portsmouth—and a distant college becomes the calling place of her parents.

It is a little frightening how your children grow up—and seem to grow away from you.

So, my first thoughts, perhaps, are with your mothers and fathers. Out of their love comes the means and the meaning of this day. The sincerity of their Christian duty culminates in this scene of beauty. There is truly a Benedictine benediction.

We parents are grateful to God for His wonderful blessing that we call by a simple name—the sweet and simple name of "family."

Here, with your faculty, you have fashioned another family. Here you have found another kind mother—an alma mater you can never forget.

Here your teachers have imbued you with the truest tests and deepest values of education. The test is not merely how well you learn but how well you live.

Out of the teacher's sacrifice the scholar is lifted to his own place of service to self and to society, to family, to church, and to state.

With all the sincerity of a father's heart, I salute the teacher.

And I salute you of the graduating class of 1965.

It has been well said that restless youth is the source spring of America's constant renewal—without it we should wither away.

You are the premise and the promise of the America-to-be.

I come here today with a sense of pride in the America-that-is.

In the past year it has been my opportunity to journey to many points in our country. From coast to coast it has been my privilege to take part in many gatherings of our people.

I have found an America that is not old—an America that is not tired—an America that is not fearful.

It is an America that is a little proud of what it has done, is doing, and intends to do to make this world a little better for people who want to be decent, and mean to be free.

It is an America prosperous beyond an economist's dream.

It is a generous America—eagerly generous to share its prosperity, its power, its purpose of honorable peace with people everywhere.

I have found an America surprisingly young again.

It has its errors, its pains, and its aches. But these are the growing pains of a nation that counts its age in decades in a world that counts its weariness in centuries.

But never in recorded history has a nation taken such giant steps to overcome its ills.

And we have not failed the needy anywhere in the world.

Never in the experience of mankind has a nation, as a nation, so sent its youth to the wide flung frontiers of human need.

In far away places our Peace Corps proves that America has ideas and ideals framed in decency and dignity that we have a moral purpose that we treasure just as much as our material and military strength.

President Johnson has said that our record of fighting hunger and illiteracy and underprivilege abroad has shown us that we can, and should, and must, fight those evils at home.

We are doing that.

To my mind poverty and peace are the paramount, inseparable problems of our time.

This means your time, young men of this graduating class.

In my heart I believe that we cannot have tranquility at home if a great segment of our people feel that equity and opportunity have passed them by.

In my heart I do not believe that we can have peace in the world if little people can be made to feel that they have been counted out and left by conquerors to languish in poverty.

Poverty seems unreasonable in a world of plenty when the science of man holds every potential of satisfying every human need.

War seems irrational when we know that peace holds so much promise in removing the ancient causes of war.

We want a world in which men can walk with triumph in their eyes and not with terror in their hearts.

We want the hearts of the world to sing with their God-given goals of life, liberty, and the pursuit of happiness.

That is the aim of our free society.

But remember this, remember this well, in our world of challenge and change only an educated society can stay free.

Only a truly educated society can lift up the lowly and neglected of its own people, providing the means for self-improvement, education, training, rehabilitation, changes in social attitudes and institutions, their chance for a share in the good and Great Society.

Only an educated society can be a leader in this modern world. It is a world where two-thirds of its people are underprivileged and impatient. They seek in their lifetime to lift themselves to what took us centuries to achieve.

Only an educated society with spiritual purpose can match a science minded communism—a materialistic mind vacillating between domination and destruction of the world.

In a tomorrow of instant global communication, when physical man will speed through space at 5 million miles an hour, the mind of man cannot falter for a moment, the heart of man cannot fail him for an instant.

Only an educated society can give us a lease on liberty.

The future of freedom depends on the youth of today and the use he makes of the classroom of tomorrow.

It is the duty of each youth to develop to the fullest the talents with which God has endowed him. This cannot be a selfish development—it must be for the service of mankind.

But that is something you have learned at Portsmouth Priory.

Hasn't a Benedictine said it something like this: "The work we do in life is given us by God. We must work while the light lasts—and since the light is the light of faith—we must work fully and faithfully to the last moment of our lives."

To this I would say God has granted that you should be born in a time of boundless opportunity.

Don't stop short of your best.

With your preparation here, I have confidence in your capacity to carry on to college and beyond. I have confidence in your convictions, and your courage.

You will have a ready answer to that eternal challenge: ask only what you can do for your country and your God.

That challenge brings memories of a youth who used to travel these ways and these waters. Along this shore, at Melville, he learned the arts of war and the urgency of peace.

John Kennedy knew that peace was compounded of power and justice and liberty.

On a cold January day, 4 years ago, he set our hearts on fire with these words: "Let every nation know, whether it wishes us well or ill, that we shall pay any price, bear any burden, meet any hardship, support any friend, oppose any foe, in order to assure the survival and success of liberty."

Today those words are graven on a stone in a sacred acre of England's Runnymede. There on a June day 750 years ago, King John signed the Magna Carta of the freedoms that have been fostered and have grown wherever the English language is spoken.

May they still be treasured 750 years from now—and may the spirit of a free America still echo John Kennedy's parting phrase: "Let us go forth to lead the land we love, asking His blessing and His help, but knowing that here on earth God's work must truly be our own."

INCREASING WORLD FOOD OUTPUT

Mr. SIMPSON. Mr. President, much of man's history can be traced in his continuous and usually futile struggle to produce sufficient food to sustain his person and his society. Today in what is perhaps the era of man's greatest technological understanding, there remains in the lesser developed countries a tragic shortage of food, even as the populations of these countries are increasing.

The dilemma created by the failure to exploit the existing technical knowledge in the underdeveloped areas was explored recently in a detailed report by U.S. Department of Agriculture International Agricultural Economist, Lester R. Brown.

In a report entitled "Increasing World Food Output," Mr. Brown compares the progress in raising acreage yields for a number of countries and in several crops.

His observations were the subject of an editorial in the May 21 Washington Post and a news item by Gene M. White in the Post's May 27 issue. I believe these two press reports, together with the summary of Mr. Brown's findings, as printed in "Increasing World Food Output," contribute greatly to the available knowledge on this subject, and I ask unanimous consent that they be printed in the RECORD.

There being no objection, the reports and summary were ordered to be printed in the RECORD, as follows:

[From the Washington (D.C.) Post, May 21, 1965]

FOOD AND KNOWLEDGE

In the first half of the 19th century David Ricardo, T. R. Malthus and other classical economists predicted an end to economic progress that was predicated on the assumption of diminishing returns in agriculture. Their prophecy proved false, not only because of the opening up of new lands in the Western Hemisphere and Australasia, but more importantly because advancing technology—better techniques of cultivation, irrigation and the introduction of chemical fertilizers—raised acreage yields. The technological advance that laid the Ricardian bogey of diminishing returns is based on widely diffused knowledge. But the application of that knowledge in the underdeveloped areas, where two thirds of the world's population dwells, is proceeding at a snail's pace at a time when the supply of virgin land is being exhausted.

The dilemma created by the failure to exploit the existing technical knowledge in the underdeveloped areas is the subject of a report on "Increasing World Food Output" by Lester R. Brown of the U.S. Department of Agriculture. In a series of fascinating graphs, Mr. Brown compares the progress in raising acreage yields for a number of countries and several crops. India today, his estimates indicate, is getting the same number of pounds of rice per acre as Japan did in the 12th century. And there are other equally striking disparities in yields for other crops, evidence of the lag in the application of agricultural technology.

The failure to adopt modern methods is related to low literacy rates and the failure in many countries to develop a market-oriented agriculture. As a result the acreage "yield gap" between the developed and underdeveloped areas is steadily widening. Food shipments from the developed to the underdeveloped countries will be helpful, but they cannot, Mr. Brown explains, "account for more than a very small fraction of projected increases in food needs over the next several years."

It would be a tragedy if the prophecies of Ricardo and Malthus were fulfilled, not because they were based on valid assumptions, but because man is unable to utilize the fruits of his own intelligence.

[From the Washington (D.C.) Post, May 27, 1965]

UNITED STATES PESSIMISTIC ON WORLD FOOD CRISIS

(By Jean M. White)

The food shortages in the world's hungry countries are likely to get worse before they get better because there is little chance for a "yield takeoff" under present conditions.

An Agriculture Department report, just released, sees no realistic hope for a quick jump in food production in most of the underdeveloped lands, in which two-thirds of the world's population lives.

The food problems, the study emphasizes, is more involved than seeds, fertilizer, machinery, and modern farm technology.

Since the world is running out of new land to plow, the only answer for the land-scarce, less-developed countries is to raise their crop yields per acre.

But here these countries are handicapped by low literacy rates and low income levels without a market-oriented agriculture. Farmers who can't read are hard to reach with new farming methods, to be taught, for instance, that they can't keep hybrid corn seed from year to year. If they have to eat up 80 percent of their crop to subsist, they don't have money to invest in seeds, fertilizer, and the machines to increase the yield of their land.

"Food shortages emerging in the less-developed world are not due to a lack of technology but to the inability to apply existing technology as fast as current and projected rates of population growth require," the report observes.

Lester R. Brown, agricultural economist, who recently returned from a trip to India, is the author of "Increasing World Food Output."

He applies the takoff concept, used by Economist W. W. Rostow for income per person, to yield per acre.

As Brown sees it, there are four major pretakeoff factors for a sudden, sustained rise in per-acre crop yields. These are a relatively high level of literacy, an income level to provide capital to invest in yield-raising capital inputs, a market-oriented agriculture, and support from the nonagricultural economy in such things as fertilizers, pesticides, and transportation.

The big jumps in yields in the last few decades have come chiefly in the developed regions. Between 1934-38 and 1960, grain yields in North America increased 109 percent. But in Asia, where food needs are much greater with a rapid population growth, they rose only 7 percent.

Before World War II, the less-developed countries of Asia, Africa, and South America, were mostly exporters of grain. Now they no longer can grow enough food to feed their growing populations and are steadily losing ground in the race with expanding population.

India now needs 7 million tons of imported grain to feed its people. China needs 6 million tons. In his report, Brown warns that it will be "very difficult to establish a secure and lasting world order in a situation where the less-developed world continues to become increasingly dependent on concessional food shipments from the advanced countries."

And in the future, he notes, food shipments cannot account for more than a small part of the projected increase in food needs over the next several years. The solution, he emphasizes, must come from improving agriculture within the less-developed countries of the world.

SUMMARY

In the past 25 years, some very significant changes occurred in the worldwide man-land-food relationship. Food output per person in the less developed regions (Asia, Africa, and Latin America) dropped sharply during World War II, but trended steadily upward during the 1950's, in most cases reaching or closely approaching prewar levels. In the 1960's, however, output per person in these regions has shown a disturbing tendency to trend downward.

Before the war, the less developed regions were exporting 11 million tons of grain per year to the developed countries. After the war, this flow reversed. During the early postwar years, 4 million tons of grain per year moved from the developed to the less developed world. As population growth rates accelerated in the 1950's, this flow increased, averaging 13 million tons per year in the late 1950's. In the 1960's, the flow has increased further, reaching 21 million tons in 1961 and, according to preliminary estimates, 25 million tons in 1964.

The less developed world is clearly losing the capacity to feed itself; stated otherwise, a growing share of the increase in population is being sustained by food shipments from the developed regions, largely from the United States under the food-for-peace program.

Why is the less developed world losing the capacity to feed itself? The answer can be stated in simple terms. Throughout history, man has increased the food supply by expanding the area under cultivation. But today many densely populated, less developed countries have nearly exhausted the supply of new land that can readily be brought under cultivation. Nearly half of the world's people live in less developed countries that are now essentially fixed-land economies—that is, almost all cultivable land is already in use. These countries must look to rising per acre yields for most of the additions to their food supply. They must generate a yield takeoff—a sustained rise in yield per acre.

The ability to generate a trend of rapidly rising yields, however, has been confined largely to the more advanced countries. Over the past quarter century, all the increase in food output in both North America and Western Europe came from raising yield per acre. Yield per acre in North America, the most advanced region, increased 109 percent; in Asia, the least advanced region, it increased only 7 percent, and for the entire less developed world it rose only 8 percent.

Once yield-per-acre takeoffs are achieved, yields tend to continue upward. There is no record of a post-takeoff country in which yields have tended to level off or trend downward. If anything, yields tend to increase at an accelerating rate after takeoff. The problem is to generate the yield takeoff. And the big question is: What is needed for a yield takeoff?

One factor facilitating a yield-per-acre takeoff is a reasonably high level of literacy. A trend of rapidly rising yields implies the continuous movement of new ideas and techniques from the research plot to the farmer, and this is much easier in a largely literate society.

Rates of yield increase vary widely among countries with widely varying literacy levels. Major grain producing countries with literacy levels below 50 percent raised yields at 0.2 percent per year between 1935 and 1939 and 1960 and 1962. Those with literacy levels between 50 and 80 percent achieved a 1.1 percent annual rate of gain; those above 80 percent averaged 1.4 percent.

There is also a close relationship between the average level of income per person in a country and its ability to raise output per acre. Countries with average per capita incomes below \$200 per year raised yields an average of 0.2 percent per year between prewar and 1961-62. Those with incomes between \$200 and \$1,000 averaged a 1 percent rate of yield increase. And those with incomes above \$1,000 averaged more than 2.2 percent per year.

Another factor facilitating a yield-per-acre takeoff is the development of a market-oriented agriculture. In subsistence-type economies, the share of farm output entering the market is often very small, limiting the amount of cash which farmers have to purchase yield-raising inputs such as fertilizer. This was not a serious handicap when food output could be increased by simply expanding the area under cultivation.

Agriculture is often quite independent of the remainder of the economy in an area-expanding situation, but as it becomes possible to increase the food supply only by raising yields, agriculture becomes quite dependent on the remainder of the economy for a wide variety of goods and services, varying from capital inputs such as fertilizer and pesticides to services such as research, credit, and transportation. Thus, the ability to raise yields is closely related to the level of devel-