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H - 2 AVDRC

1972/74

Vol. I

The World Bank Group
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Consultative Group on International Agricultural Research [CGIAR] - H-2 - Asian
Vegetable Research Development Center [AVDRC] - 1972 / 1974 Correspondence -
Volume 1

RETURN TO
CENTRAL FILES

DECLASSIFIED
WBG Archives

H2
H3

December 30, 1974

Mr. Robert F. Chandler, Jr., Director
The Asian Vegetable Research and Development Center
P.O. Box 42, Shanhua
Tainan, 741
Taiwan, REPUBLIC OF CHINA

Dear Bob:

IDRC have sent me a copy of your letter to Diouf and I am very glad that you are arranging to visit WARDA.

It so happens that I plan to attend IITA's in-house review on February 24-28 and on my way there I have tentative plans to stop off at Monrovia to accompany the Program and Budgeting offices on a visit to WARDA. That would probably be about February 20-21. From your proposed itinerary it would appear that we could arrange a meeting without too much trouble. Perhaps you could keep me informed of your plans.

With best regards,

Yours sincerely,



Dr. John K. Coulter
Scientific Adviser

JKC:ph

H-2

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

June 21, 1974

Mr. Peter A. Oram
Secretary, Technical Advisory Committee
Consultative Group on International
Agricultural Research
Food and Agriculture Organization
of the United Nations
Via delle Terme di Caracalla
Rome 00100, Italy

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9/2/74
cc for minutes
my.

Dear Mr. Oram,

At the suggestion of Dr. Bruce M. Cheek of the Consultative Group, I am pleased to send the enclosed copy of my paper on the value of organic manure to you for your information and reference. I am glad to learn that the Technical Advisory Committee of the Consultative Group is also giving attention to this subject.

Since the insufficiency of food is not a result of the decrease in the growing area nor due to the lack of technical breakthrough in plant science but because of the decrease in the supply of chemical fertilizers, I think that it would be meaningful for the world agricultural experts to re-examine the value of organic manures, at least under the present situation after the energy crisis happened in 1973.

Because a normal supply of chemical fertilizer will unlikely be resumed on the international market within the next 2 or 3 years, in addition to the development of more efficient and economical ways of applying chemical fertilizer, the organic approach to crop production seems to be a way to partially maintain the soil fertility or productivity of our farming land. The advantages of organic manure, such as the availability in rural area, no risk or bad side-effect after application and its unexpensiveness, etc. should not be over looked by the world experts.

In this article, a few examples excerpted from the research activities conducted in Taiwan in the past have been compiled to illustrate the value of organic manure to crop production under the climatic conditions of Taiwan. I sincerely hope that this article may be of some reference value to the very important people like you and others responsible for the planning of world agriculture and food production programs.

Sincerely yours,

C. L. Luh

C. L. Luh
Associate Director

Encl.

DON'T OVERLOOK THE VALUE OF ORGANIC MANURE TO CROP PRODUCTION

C. L. Luh*
May 1, 1974

Since the creation of chemical fertilizer, farmers all over the world have greatly enjoyed and appreciated its advantages as it raises both the yield and quality of their farm products. Unfortunately, in 1973 the supply of chemical fertilizer was considerably reduced due to the shortage of energy sources on the international market. This inadequate supply of chemical fertilizer throughout the world definitely will not come to an end within the next one or two years. How to maintain the crop production to a certain high level before a normal supply of chemical fertilizer becomes available would be worthy of consideration by the scientists.

The application of organic manure alone, of course, will not be the complete answer to this question; yet, no doubt, the value of organic manure has been underestimated by most people, especially by those who are exclusively familiar with chemical fertilizers. Since almost everyone in the world was more or less affected by the storm of food shortage in 1972 and energy crisis in 1973, the subsequent result might be a serious one if nothing were done to relieve the pressing need of maintaining soil fertility and productivity. The following are some facts experienced by farmers in Taiwan, and these experiences, I assume, may be of value to farmers in other parts of the world.

* Associate Director, Asian Vegetable Research and Development Center, Shanhua, Taiwan, R. O. C.

Kinds of Organic Manure Used in Taiwan:

According to the Taiwan Agricultural Year Book published by the Taiwan Provincial Department of Agriculture and Forestry, about 14 million metric tons of organic manures, including rice straw, used mushroom compost, bagasse, green manure, animal manure, hog farm yard manure and ash, are applied before each planting for better crop production. According to an island-wide calculation, an average of 8-9 metric tons of organic manure is applied per hectare per annum.

Amount of Organic Manure Applied*:

In terms of N, P_2O_5 and K_2O content in the organic manure, it is estimated that a total of approximately 60,000 metric tons of nitrogen, 32,000 metric tons of P_2O_5 and 46,000 metric tons of K_2O have been derived from the organic manures, or 35 kg. of N, 19 kg. of P_2O_5 and 27 kg. of K_2O per hectare.

Effect of Organic Manure on Yield of Paddy:

A long-term trial from 1926 to 1957 on rice has proved that organic manuring is better than inorganic manuring when an equal amount of nitrogen (i. e. 95 kg. per hectare per crop) was applied.

Comparison of yield responses of rice to organic manure and chemical fertilizer in a long-term trial from 1926-1957** is tabulated below:

* Chu, H. F., Production and Extension of Organic Manures in Taiwan, JCRR, Plant Industry Series, No. 20:160-165

** Tschg, H. D. (1961) Fertilizer and Manure of Rice in Taiwan JCRR, Plant Industry Series, No. 20:36-51

Nutrient Source	Yield of Grain (kg. /ha.)			
	1st Crop		2nd Crop	
	Mean	Increase	Mean	Increase
Check or Nil	1,565	--	1,695	--
Chemical fertilizer	2,795	1,230	2,429	734
Green manure	2,957	1,392	2,561	866
Stable manure	3,163	1,598	2,807	1,112

Because of the limited sources of organic manure, it was unpractical to have the chemical fertilizer completely replaced by it, especially when the latter was available and inexpensive on the international market before 1973. But since energy crisis broke out, the shortage of chemical fertilizer has stimulated us to advise our farmers to apply organic manure as a supplement to soil fertility which usually is enriched by chemical fertilizer. The application of organic manure is justifiable now if there is an adequate source of supply at a reasonable cost.

Effect of Organic Manure on Yield of Upland Crops:

Upland crops usually have a better response to organic manure than does rice. The best examples are vegetables. The increased yields obtained from the application of compost, with optional supplies of N. P. K in the form of chemical fertilizers, in several fall-planting trial on vegetables were as follows:

<u>Kinds of Vegetable Crop</u>	<u>% of Yield Increase</u>	<u>MT of Compost applied/ha</u>
Common cabbage*	6	20
Chinese cabbage*	6	20
White potatoes**.	7-15	15
Spinach***	11-21	20

The specific effect of organic manure is relatively high under dryland conditions. Therefore, its use is commonly confined to dry land crops, especially to high-value crops such as vegetables and fruit trees.

Green Manuring :

Green manuring is a long-time practice of farmers in Taiwan. The major green manure crops of great importance to certain crops are as follows:

<u>Kind of Green Manure Crops</u>	<u>Crops and Soils Best Fitted</u>
Sesbania Sesban	Paddy soils in spring
Astragalus Sinicus	Paddy soils in winter
Crotalaria Juncea	Well drained sugarcane soils
Sesbania Sesban	Poorly drained and saline sugarcane soils
Mucuna Capitata	Shallow, droughty and sandy soils for pineapple

* Wang, C. T. (1971) Experiment on Optimum Rates of Urea for Fall-Planting Cabbage and Chinese Cabbage in 1970/71 Winter (mineo)

** Wang C. T. Experiments on Optimum Rates of Nitrogen and Potassium for Potatoes in 1970/71 Winter (mineo)

*** Tseng, J. C. (1971), Fertilizer Experiment for Spinach in 1970/71 Winter (mineo)

According to an early experiment with sugarcane, the estimated value of green manuring expressed in terms of nitrogen per hectare is very promising. The studies* indicated that the application of 20-40 tons of green crotalaria per hectare could save 40-63 kg. of nitrogen per hectare in the first-plant crop and 61-86 kg. per hectare in the second-plant crop.

The disadvantage of green manure crops has been known to Taiwan farmers largely due to the application of multiple-cropping system for maximum economical use of cultivated land and also due to the abundant supply of nitrogen fertilizer. However, areas without the need of multiple-cropping and having an inadequate supply of chemical fertilizers should reconsider the adoption of green manuring.

During the peak years of 1948 to 1953, approximately 200,000 hectares of paddy field were planted with green manure crops, which represented about 22-25% of the total acreage of paddy land.

In conclusion, I should say that the value of organic manure to soil fertility and crop production can not be overlooked. The application of organic manure deserves serious consideration by farmers and agricultural workers in both the developing and developed countries, especially when there is a shortage of chemical fertilizers the world over.

* Shine, J. J. (1960), Field Experiments on the Effects of Green Manures and Nitrogenous Fertilizers upon Sugarcane, Report of Taiwan Sugar Expt. Sta. 20:41

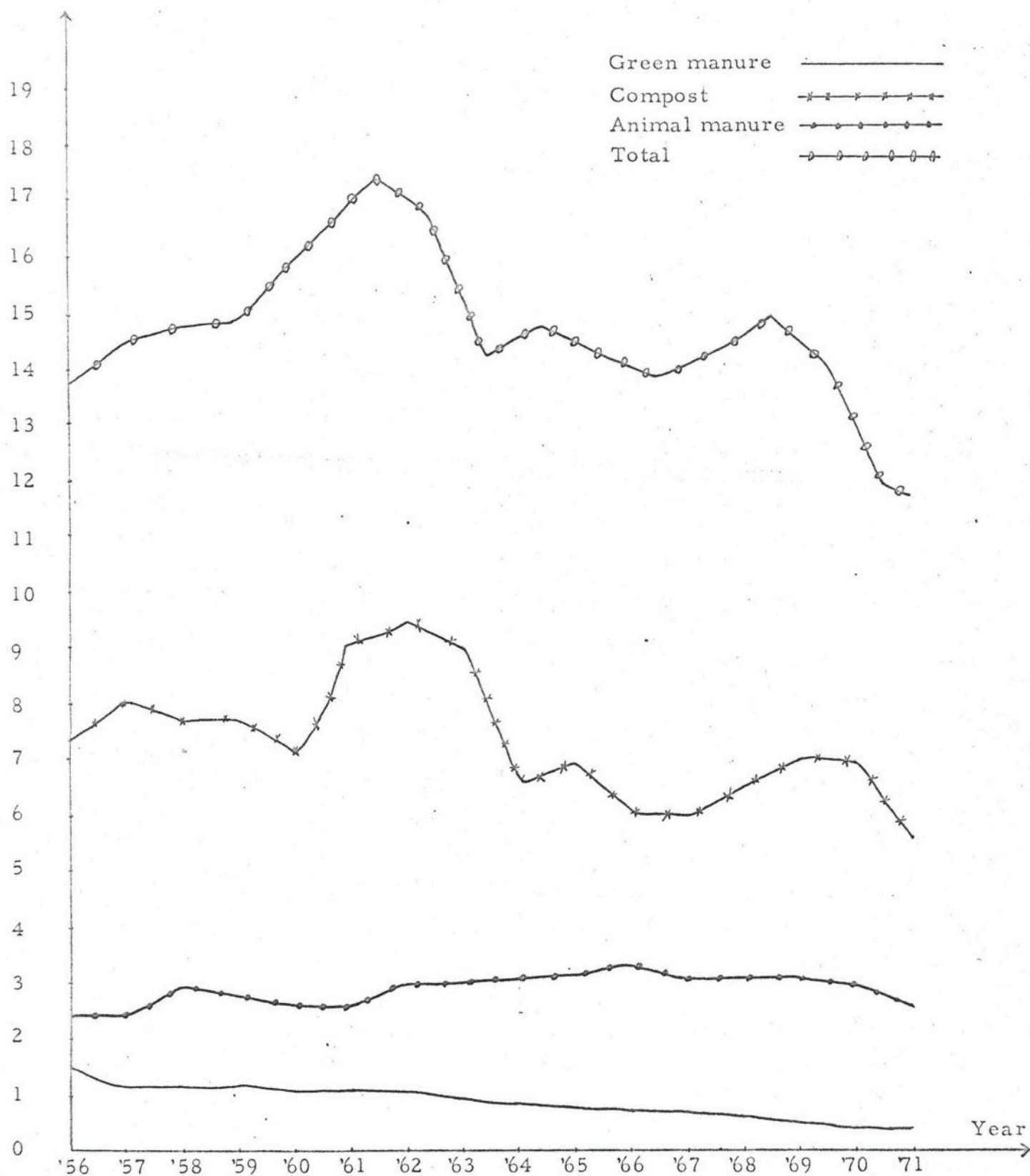
ORGANIC MANURES CONSUMED IN TAIWAN 1956-1971

<u>Year</u>	<u>Green Manure</u>	<u>Compost</u>	<u>Animal Manure</u>	<u>Total</u>
1956	1,544,921	7,327,320	2,529,885	13,871,568
1957	1,275,607	8,109,158	2,483,784	14,517,505
1958	1,223,802	7,759,409	2,919,908	14,820,681
1959	1,227,755	7,721,130	2,732,083	14,947,443
1960	1,164,755	7,183,356	2,627,923	14,135,074
1961	1,107,322	9,207,591	2,668,894	16,427,960
1962	1,112,825	9,583,005	3,031,371	17,400,252
1963	988,604	9,095,083	3,076,956	16,766,008
1964	927,792	6,538,269	3,150,263	14,339,324
1965	813,748	6,957,458	3,248,578	14,802,534
1966	773,616	6,138,951	3,386,929	14,273,647
1967	782,222	6,073,689	3,138,251	13,837,145
1968	665,105	6,529,556	3,136,027	14,261,576
1969	538,117	7,097,960	3,110,267	14,916,652
1970	464,391	6,967,265	2,903,396	14,166,065
1971	409,535	5,624,795	2,676,659	11,983,353

(unit: metric ton)

Source: "Taiwan Agricultural Yearbook" published by the Taiwan Provincial Department of Agriculture & Forestry.

Tons (unit: 1,000,000)



ORGANIC MANURES CONSUMED IN TAIWAN 1956-1971

93d.

June 12, 1974

Dear Dr. Luh:

Thank you for your letter of May 31. I appreciate your thoughtfulness in sending me your paper on the value of organic manure.

The Technical Advisory Committee of the Consultative Group is also giving attention to this subject. If you have not done so, may I suggest that you make your paper available to Dr. M. S. Swaminathan, Mr. Peter A. Oram, and also to Sir John Crawford, the Chairman of TAC, whose addresses are attached.

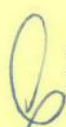
Sincerely yours,



Bruce M. Cheek

Attachment

Dr. C. L. Luh
Associate Director
The Asian Vegetable Research and
Development Center
P.O. Box 42
Shanhua, Tainan, 741
Taiwan
Republic of China

 cc: Sir John Crawford
BMC:mcj

~~42~~ H2

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

May 31, 1974

Dr. Bruce M. Cheek
Consultative Group on International
Agricultural Research
1818 H. St. N. W.
Washington, D. C. 20433
USA

Dear Dr. Cheek,

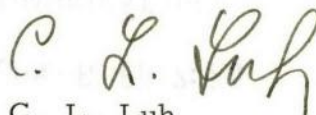
Enclosed please find a manuscript paper titled "Don't Overlook the Value of Organic Manure to Crop Production Today" prepared by the undersigned.

Since the occurrence of the energy crisis in 1973, the whole world has been encountering a shortage of chemical fertilizers that in turn affects food production to a considerable extent. It is anticipated that more people will starve if the problem of food supply is not solved soon.

Since the insufficiency of food is not a result of the decrease in the growing area, but of the decrease in the supply of fertilizer, I think that it would be meaningful for the agricultural experts to re-examine the value of organic fertilizer, at least under the present situation.

In this article, a few examples excerpted from the research reports published here in Taiwan have been compiled to illustrate the value of organic manures to crop production. I sincerely hope that this article may be of some reference value to the very important people like you and others in charge of world agricultural planning and related affairs. Could soil fertility be maintained to a certain level through the application of organic manures as a supplement of chemical fertilizer, some people in certain areas might be benefited from the article.

Sincerely yours,



C. L. Luh
Associate Director

Encl.
/myw

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Davidson

Associate Director

C. G. LAR

1974 JUN -6 PM 2:24

COMMUNICATIONS

SECTION

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Dear Dr. Creek,

USA

Washington, D. C. 20433

1818 H. St. N. W.

Agricultural Research

Consultative Group on International

Dr. Bruce M. Creek

MAY 31, 1974

ASIAN AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
CABLE ADDRESS:

TAIWAN, REPUBLIC OF CHINA
P. O. BOX 45, SHANINPA, TAIWAN, 101

084-31131
TELEPHONE

THE ASIAN AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

HS

DON'T OVERLOOK THE VALUE OF ORGANIC MANURE TO CROP PRODUCTION TODAY

C. L. Luh *
May 31, 1974

Since the creation of chemical fertilizer, farmers all over the world have greatly enjoyed and appreciated its advantages as it raises both the yield and quality of their farm products. Unfortunately, the supply of chemical fertilizer was considerably reduced in 1973 due to the shortage of energy sources. This inadequate supply of chemical fertilizer throughout the world definitely will not come to an end within the next one or two years. How to maintain the crop production to a certain high level before a normal supply of chemical fertilizer becomes available would be worthy of consideration by scientists.

The application of organic manure alone, of course, will not be the complete answer to this problem; however, the value of organic manure has been underestimated by most people, especially by those who are only familiar with the use of chemical fertilizers. Since almost everyone in the world was more or less affected by the storm of food shortage in 1972 and energy crisis in 1973, the subsequent result might be a serious one if nothing were done to relieve the pressing need of maintaining soil fertility and productivity. The following are some experiences gained by farmers in Taiwan. These experiences, I hope, may be of value to farmers in other parts of the world.

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<u>Kind of Green Manure Crops</u>	<u>Crops and Soils Best Fitted</u>
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<u>Astragalus sinicus</u>	Paddy soils in winter
<u>Crotalaria juncea</u>	Well drained sugarcane soils
<u>Sesbania sesban</u>	Poorly drained and saline sugarcane soils
<u>Mucuna capitata</u>	Shallow, droughty and sandy soils for pineapple

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According to an early experiment with sugarcane, the estimated value of green manuring expressed in terms of nitrogen per hectare is very promising. The studies* indicated that the application of 20-40 tons of green Crotalaria per hectare could save 40-63 kg. of nitrogen per hectare in the first-plant crop and 61-86 kg. per hectare in the second-plant crop.

The disadvantage of green manure crops has been known to Taiwan farmers largely due to the application of multiple-cropping systems for maximum use of cultivated land and also due to the abundant supply of nitrogen fertilizer. However, areas without the need of multiple-cropping and having an inadequate supply of chemical fertilizers should reconsider the adoption of green manuring.

During the peak years of 1948 to 1953, approximately 200,000 hectares of paddy field were planted with green manure crops, which represented about 22-25% of the total acreage of paddy land.

As commented on the value of organic manures to the soil productivity, Dr. Takashi Yoshida, Soil Scientist of AVRDC, stated that "According to my knowledge obtained from the literatures and previous experience in Japanese agricultural experiments, in the case of rice cultivation, if the soil is cultivated without any organic manure for 30 years, its productivity=

* Shiue, J. J. (1960), Field Experiments on the Effects of Green Manures and Nitrogenous Fertilizers upon Sugarcane, Report of Taiwan Sugar Expt. Sta. 20:41

will decrease: in the case of upland cultivation, several years later, its productivity will decrease more." Obviously, in addition to the direct effect of organic manures, the residual effects of organic manures are also recognized as an important factor in maintaining soil productivity. In other words, it is evident that soil fertility or productivity can not be maintained or increased by chemical fertilizer alone.

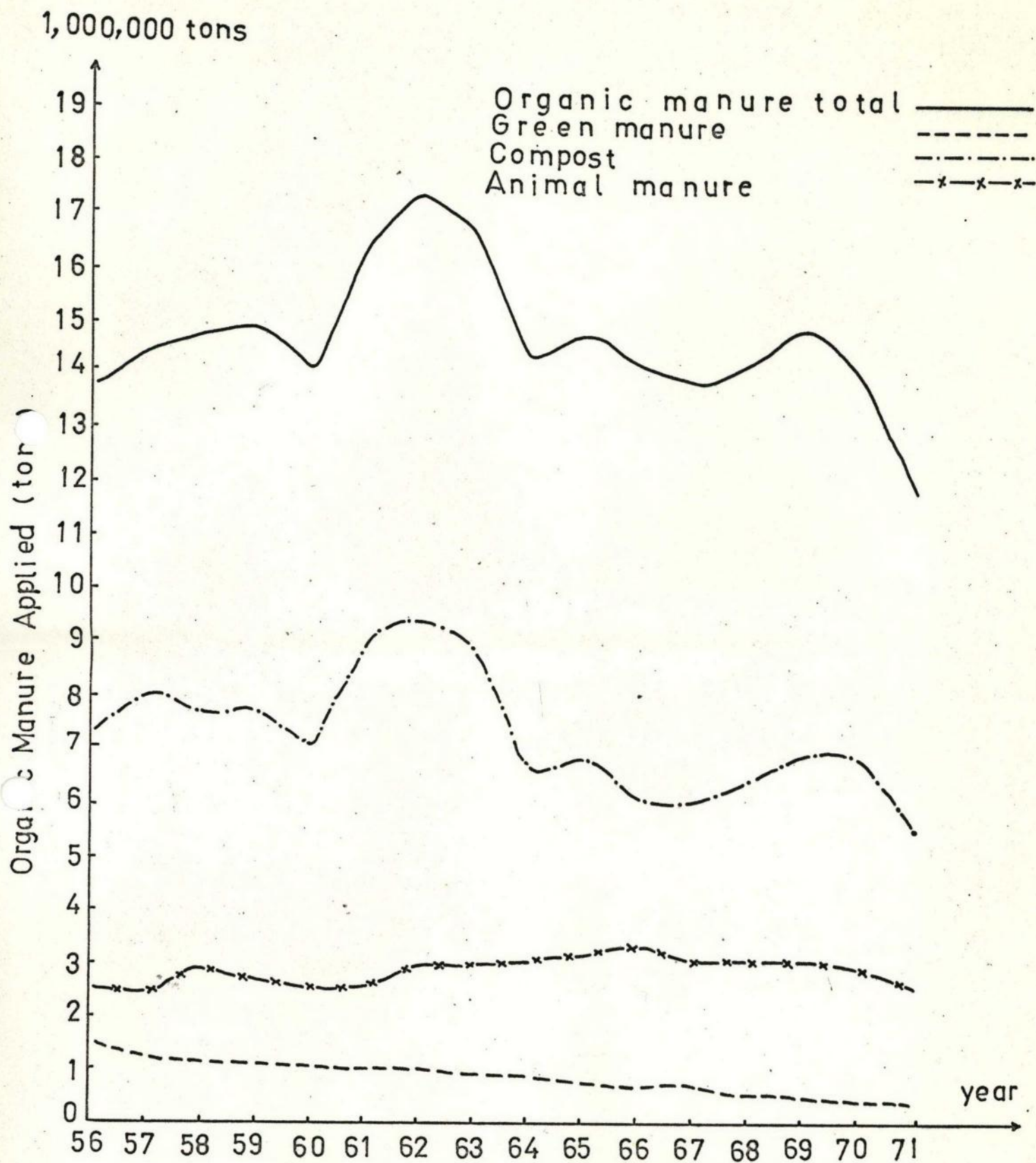
In conclusion, I should say that the value of organic manure to soil fertility and crop production can not be overlooked. The application of organic manure deserves serious consideration by farmers and agricultural workers in both the developing and developed countries, especially when there is a shortage of chemical fertilizers over the world.

ORGANIC MANURES CONSUMED IN TAIWAN 1956-1971

<u>Year</u>	<u>Green Manure</u>	<u>Compost</u>	<u>Animal Manure</u>	<u>Total</u>
1956	1,544,921	7,327,320	2,529,885	13,871,568
1957	1,275,607	8,109,158	2,483,784	14,517,505
1958	1,223,802	7,759,409	2,919,908	14,820,681
1959	1,227,755	7,721,130	2,732,083	14,947,443
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1961	1,107,322	9,207,591	2,668,894	16,427,960
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1968	665,105	6,529,556	3,136,027	14,261,576
1969	538,117	7,097,960	3,110,267	14,916,652
1970	464,391	6,967,265	2,903,396	14,166,065
1971	409,535	5,624,795	2,676,659	11,983,353

(unit: metric ton)

Source: "Taiwan Agricultural Yearbook" published by the Taiwan Provincial Department of Agriculture & Forestry.



1956-1971
ORGANIC MANURE CONSUMED IN TAIWAN
1956-1971

Table Showing Consumption of Principal Organic Manures
in Taiwan, 1956-1958
(on element basis)

(Unit: m. t)

Year	Type	Gross		N	P ₂ O ₅	K ₂ O
		Quantity	%			
1956	Green manure	1,544,921	11.1	7,725	1,545	7,725
	Animal manure	2,529,885	18.2	7,590	3,795	2,530
	Night-soil	1,652,392	11.9	8,262	4,131	8,262
	Compost	7,327,320	52.8	30,775	15,387	10,991
	Straw	559,774	4.1	3,191	1,287	5,878
	Ash	257,276	1.9	--	4,297	8,696
	Total	13,871,568	100.0	57,543	30,442	44,082
1957	Green manure	1,275,607	8.8	6,378	1,276	6,378
	Animal manure	2,483,784	17.1	7,451	3,726	2,484
	Night-soil	1,772,840	12.2	8,864	4,432	8,864
	Compost	8,109,158	55.8	34,058	17,029	12,164
	Straw	604,613	4.2	3,446	1,391	6,348
	Ash	271,503	1.9	--	4,534	9,177
	Total	14,517,505	100.0	60,197	32,388	45,415
1958	Green manure	1,223,802	8.3	6,119	1,224	6,119
	Animal manure	2,919,908	19.7	8,760	4,380	2,920
	Night-soil	1,999,864	13.5	9,999	5,000	9,999
	Compost	7,759,409	52.3	32,590	16,295	11,639
	Straw	593,834	4.0	3,385	1,366	6,235
	Ash	323,864	2.2	--	5,409	10,947
	Total	14,820,681	100.0	60,853	33,674	47,859
Aver- age	Green manure	1,348,110	9.4	6,741	1,348	6,741
	Animal manure	2,644,526	18.3	7,934	3,967	2,645
	Night-soil	1,808,365	12.5	9,042	4,521	9,042
	Compost	7,731,962	53.7	32,474	16,237	11,598
	Straw	586,074	4.1	3,341	1,348	6,154
	Ash	284,214	2.0	--	4,746	9,606
	Total	14,403,251	100.0	59,532	32,167	45,786

Remarks: (1) Source: "Taiwan Agricultural Yearbook" published by the Taiwan Provincial Department of Agriculture & Forestry.

(2) Element content (%)

	N	P ₂ O ₅	K ₂ O
Green manure	0.50	0.10	0.50
Animal manure	0.30	0.15	0.10
Night-soil	0.50	0.25	0.50
Compost	0.42	0.21	0.15
Straw	0.57	0.23	1.05
Ash	--	1.67	3.38

A H2

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

February 6, 1974.

Sir John Crawford
Australian National University
Canberra, Australia

Dear Sir John,

As you know from my brief account at the TAC meeting last August in Washington, the Asian Vegetable Research and Development Center is getting off to a good start. However, the structuring of our financial support, as originally envisaged by the founders of our Center, is inadequate to support the kind of a program which we deem necessary to make rapid progress in solving the major problems surrounding the six crops we have selected for attention.

I know you realize that the "two-China problem" has been a factor in our acceptance by the Consultative Group. It may be that this problem will have to await further political moves before it can be settled. However, there is another obstacle to our obtaining bilateral grants outside the framework of the Consultative Group (even though the grants may be from members of the CG). This obstacle is that our Center has never received the full endorsement of the Technical Advisory Committee of the Consultative Group on International Agricultural Research. At least the only recommendation that I am aware of is covered under item 23 of the meeting of the Consultative Group in Washington, D. C. on November 1 and 2, 1972. On this occasion it is recorded that TAC recommended support of our capital requirements (it so happened that we did find ways of meeting these needs through increased contributions from the Republic of China, the Republic of the Philippines and the Kresge Foundation).

Referring to an earlier document (the report of the fourth meeting of the Technical Advisory Committee in Washington from August 2 - 4, 1972), it seems clear that there was considerable doubt in the minds of some members of the TAC that AVRDC should receive a strong endorsement. Furthermore, at the close of my presentation to the Consultative Group last August, when the Japanese delegate asked Chairman Demuth why AVRDC was not a full member of the Consultative Group on

Cont. . . .

Sir John Crawford

Page 2

International Agricultural Research, he replied that because of the international political situation, the CG was headed for internal disagreement if the discussion continued (this was in November 1972). Therefore they decided to give AVRDC associate membership only. Then he added words to the effect that the TAC had not recommended that high priority be placed on support for AVRDC.

As you know from my report last August, we have reduced our crops from the 12 being considered in 1972, to only 6. These include two important grain legumes (mungbeans and soybeans), two root crops (sweet potatoes and Irish potatoes), a high vitamin and important cash crop for the small farmer (the tomato), and one leafy vegetable (Chinese cabbage). Please understand that I fully support the view that research on the major cereal grains should command first priority. However, we are aware of the fact that the TAC seems to fully approve of IITA working on cowpeas, and sweet potatoes, for example, or CIAT studying dry beans, yet it is unwilling to give serious consideration to recommending full support for AVRDC's effort to bring new vistas to the mungbean, to becoming the Asian Outpost for the soybean, (perhaps tied to INTSOY) and to significantly improving the quality of the sweet potato, which is a much more important crop today in Asia than it is in Africa.

We now have our entire physical plant either already built, or under construction (with the money in hand). We have 16 senior scientists on our administrative and scientific staff, most of whom have education through the Ph. D. degree plus varying degrees of practical experience. This group is comprised of six different nationalities.

Already we have demonstrated on our experimental fields that the protein content of the sweet potato varies by 300 per cent (In the case of rice we could aim for no more than a 25 per cent increase). Also we know that this is a genetic factor rather than an environmental one. We are confident that we can develop a new set of sweet potato varieties that are much higher in protein and carotene than the average product now being consumed by people and farm animals in Southeast Asia.

As you know from my report of last year, we have the largest collection of mungbeans in the world. Already we have identified varieties that are

Cont. . .

Sir John Crawford

Page 3

resistant to Cercospora leaf spot and to the bean fly, two important enemies of the crop. We have made over 600 crosses in attempts to make improvements in plant type (and hence yield potential) and in resistance to insects and diseases.

I could go on citing similar examples in the other crops with which we are working.

With the need for increased protein intake, for diversified farming, and for utilizing upland soils more effectively, I feel that AVRDC has an important role to play. We have a going concern with buildings and scientists in hand. To us it seems that these facilities should be put to the maximum use within the network of international agricultural research centers.

We are now attempting to get support from the Asian Development Bank for our outreach activities in three countries (the Philippines, Thailand, and Korea). Even before getting assurance of these funds (it will be March 1974 when they reach a final decision) we are planting mungbeans in Thailand, and we have sent other segregating populations and varieties of mungbeans, soybeans and tomatoes to several Southeast Asian countries through scientist-to-scientist arrangements. We shall try to find additional funds for outreach work in other countries such as Indonesia and Bangladesh.

Our staff members are cooperating with those at IITA, CIAT and CIP where our interests overlap, but, in my estimation do not give undue competition or duplication.

We do need additional funds for our core budget as well as for our outreach work. Inflation and other factors have caused our original cost estimates to be unrealistic. We must find more money if we are going to be successful in our efforts to raise yield potentials, human nutrition and farm incomes.

To be specific, do you think that it would be possible for a one- or two-man team from TAC (or the CG) to come here and undertake an on-the-spot assessment of our current operation, making their findings available to the CG?

Cont.

To Washington

Agenda

Sir John Crawford
Page 4

I shall be travelling pretty much until mid-March. However any time between then and May 18 (when I shall be going off again) would be fine for a visit from anyone who could be assigned to appraise our program.

As perhaps you know, it now looks as though I shall remain here until July 1, 1975, which is a year longer than originally intended. In the meantime I shall be assisting in identifying my successor. Dr. Oyer, the current Associate Director, has accepted the post of Director of International Programs of the College of Agriculture at Cornell University. He is succeeding Dr. Kenneth Turk who is retiring on July 1, 1974.

I trust I shall have the opportunity of seeing you personally in Washington in late July or early August during International Centers Week.

Sincerely yours,



Robert F. Chandler, Jr.
Director

P. S. I am taking the liberty of sending a copy of this letter to Mr. Harold Graves.

/imt

Joe Washington

13 February 1974

Dr Robert F. Chandler, Jr.,
Director,
The Asian Vegetable Research and
Development Center,
P.O. Box 42, Shanhua,
Tainan, 741,
TAIWAN, REPUBLIC OF CHINA.

Dear Dr Chandler,

On my return from the TAC meeting held in Rome last week I found your letter of 6 February awaiting me. I can sympathise with your problem and am sending a copy of your letter to the Secretariat of the Consultative Group for consideration. No doubt they will discuss the matter with me when I next visit Washington shortly after Easter.

I am also sending a copy to Mr Oram but I do not think I can agree immediately to send a Mission to Taiwan. I would not wish to act on a matter of importance like this without the considered views of my colleagues, and I fear there will not be another opportunity to consult them until the July meeting. I will, however, further consult Mr Oram (who will be here in March) as well as the Secretariat.

I will write further as soon as I have anything useful to say but at the worst I am sure we can give the matter further consideration during the July meeting.

Warm regards,

Yours sincerely,


(J. G. Crawford)

cc. Mr H. Graves
Mr P. Oram

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

February 25, 1974.

Sir John Crawford
32 Melbourne Avenue
Deakin
Canberra, A. C. T. 2600
Australia



Dear Sir John,

We appreciate your interest and I understand the reasons why you cannot make an immediate decision about the possibility of arranging to send a Mission to our Center.

I assume that everyone concerned understands that the government of the Republic of China, located on Taiwan, in no way enters into our financial and scientific affairs, other than to make financial contributions toward our efforts. All of our negotiations for support for both core budget and outreach programs are conducted directly with donor agencies, and the government here is not even consulted.

In accordance with the last paragraph in your letter, we shall await further word from you when you have something useful to say.

With kindest regards.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Robert F. Chandler, Jr.", written in a cursive style.

Robert F. Chandler, Jr.
Director

/imt

R/s
1/3
P.O.

G 3 d

February 4, 1974

Dear Mr. Harris:

For information concerning the Asian Vegetable Research
and Development Center, I suggest you write to:

Dr. Robert F. Chandler, Jr.
Director
Asian Vegetable Research and
Development Center
P.O. Box 42
Shanhna Tainan, Taiwan (714)
Republic of China.

Sincerely yours,

Harold Graves
Executive Secretary

G S

Mr. J. S. Harris
Apartado 2713
San Jose
Costa Rica

HG:mcj

Tom

J. S. HARRIS
APARTADO 2713
SAN JOSE, COSTA RICA

November 7, 1973

Mr. Harold Graves, Secretary
Consultative Group on International Agricultural Research
International Bank for Reconstruction & Development
18th and G Streets N.W.
Washington, D. C.

Dear Mr. Graves,

Mr. William Mashler of the United Nations suggested that I write to you concerning information on the Taiwan-Asian Vegetable Center.

I am directly involved in Costa Rica with a project that grows and processes mushrooms. This year we hope to reach a level of five million pounds annually.

My associates and I are interested in the possibilities of other agricultural projects.

Sincerely,

Jack Sargent Harris

JSH/em

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COMMUNICATIONS
SECTION

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Jack William Hellye

SECRETARY

other military projects.
My associates and I are interested in the possibilities of
of the military bonds and
and processes involved. The level we hope to reach is that
I am directly involved in costs that with a project that flows

Defense Center.
While to the concept of information on the defense-veteran
ML. William Hellye of the United Nations suggested that I
Dear Mr. Glaser,

Washington, D. C.
John and I are interested in
International Bank for Reconstruction & Development
Consultative Group on International Development Research
ML. Hellye Glaser, Secretary

93d

Mr. Graves

September 20, 1972

Richard H. Demuth

CGIAR and the Asian Vegetable Center

In the course of a conversation which I had on other matters with Joel Bernstein yesterday, he pointed out the importance that we not list the AVC as a regular member of the family of centers being supported by the Consultative Group. He said that, if it were so listed, the U.S. contribution, which amounts to \$600,000 a year for five years, would be counted against the limit of \$7 million per year which the U.S. has placed on its total contribution to all CGIAR-sponsored activities and therefore, in time, might affect the availability of U.S. finance for other centers. He thought this result would not follow if we simply treated AVC as an "associate" member for purposes of exchange of information, invitations to meetings, etc., in accordance with the formula discussed at the Ford Foundation.

RHD:tf

cc: Mr. Kaps

A13
✓ 112

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

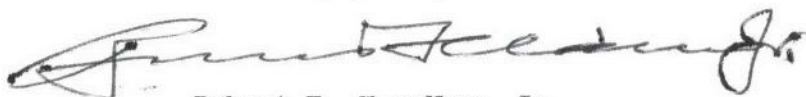
September 13, 1972.

Mr. Franz H. Kaps
Assistant to the Executive Secretary
Consultative Group on International Agricultural Research
1818 H St., N.W.
Washington, D.C. 20433
U. S. A.

Dear Mr. Kaps,

Thank you for your letter of August 29, 1972. We have
already sent out about 20 copies to additional persons on your
list. We indeed appreciate your interest and cooperation.

Sincerely yours,



Robert F. Chandler, Jr.
Director

TO: MA 029250

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RECEIVED

1972 SEP 20 AM 9:07

CO. LOCATIONS
SECTION

Director
Robert F. Chandler, Jr.



Sincerely yours,

That we indeed appreciate your interest and cooperation.
already sent out about 50 copies to additional persons on your

Thank you for your letter of August 30, 1972. We have

Dear Mr. Kays,

U. S. A.
Washington, D.C. 20533
1818 H St., N.W.
Consultative Group on International Agricultural Research
Assistant to the Executive Secretary
Mr. Frank H. Kays

September 13, 1972

..ASLEG.. SHAINHUA
CABLE ADDRESS:

TAIWAN, REPUBLIC OF CHINA
P. O. BOX 45, SHAINHUA, TAINAN, 741

064-37131
TELEPHONE:

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

7-19
HHS

History
R. S. H-2

11/17

HARVARD UNIVERSITY
DEVELOPMENT ADVISORY SERVICE
OF THE
CENTER FOR INTERNATIONAL AFFAIRS

1737 CAMBRIDGE STREET
CAMBRIDGE, MASSACHUSETTS 02138

(617) 495-2165 & 495-2164
CABLE ADDRESS: DASHARVARD

September 5, 1972

254

Mr. Richard H. Demuth
World Bank
1818 H Street, N.W.
Washington, D. C. 20433

Dear Dick:

I am reading over the final version of our manuscript. I noted in Chapter XX, p. 36, that I included in a footnote a reference to the study of investment disputes completed in 1972 that you thought I ought to delete. I talked with McNamara about this and he saw no reason why it should be excluded and, therefore, I kept it in. I don't see any reason myself why it should not be kept in unless there is objection from some member of the Executive Directors.

I am off to Spain on Sunday for a week, but I expect to attend the Bank/Fund meetings and hope to see you there.

With best wishes,

Sincerely yours,

Ed
Edward S. Mason

ESM:w

RECEIVED

1972 SEP -8 PM 3:52

COMMUNICATIONS
SECTION

TO: DIRECTOR, FBI

FROM: SAC, NEW YORK

SUBJECT: [Illegible]

Re New York letter to Bureau dated 8/28/72, captioned as above.

Enclosed for the Bureau are two copies of a letterhead memorandum (LHM) dated and captioned as above. The LHM contains information regarding the activities of [Illegible] and [Illegible] in the New York area. The LHM also contains information regarding the activities of [Illegible] in the New York area.

Very truly yours,
[Illegible]
Special Agent in Charge

SEP 11 1972

U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

CS file 93d

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

September 4, 1972.

Mr. Harold Graves
Executive Secretary
Consultative Group on International Agricultural Research
1818 H St., N.W.
Washington, D.C. 20433
U. S. A.

Dear Mr. Graves,

Thank you for your letter of August 24 with the list of the members of TAC to whom you have sent the AVRDC document.

We shall await further word from you about the future distribution.

Sincerely yours,



Robert F. Chandler Jr.
Director

SECTION
COMMUNICATIONS

1972 SEP -8 AM 2:48

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RECEIVED

1972 SEP -8 AM 9:49

COMMUNICATIONS
SECTION

DIRECTOR

ROBERT E. CHANDLER JR.



SINCERELY YOURS,

distribution.

WE SHALL await further word from you about the ~~issue~~
members of IAC to whom you have sent the VAREDC document.

Thank you for your letter of August 5th with the list of the

Dear Mr. Chandler:

U. S. A.

WASHINGTON, D.C. 20533

1878 H St., N.W.

CONSTITUTIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

EXECUTIVE SECRETARY

MR. HAROLD CHANDLER

September 7, 1972.

ASLEG, SHANHUA
CABLE ADDRESS:

TAIWAN, REPUBLIC OF CHINA
P. O. BOX 42, SHANHUA, TAINAN, TAI

084-31131
TELEPHONE:

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

clm 239

September 1, 1972

Dr. Robert F. Chandler, Jr.
 Director
 Asian Vegetable Research and
 Development Center
 P. O. Box 42, Shanhua
 Tainan, 741, Taiwan
 Republic of China

Dear Bob,

My interpretation of the remarks made by Sir John Crawford with respect to the Asian Vegetable Center are as follows:

"TAC has confidence in the Director. The Center should receive the capital required to complete its physical plant. The work proposed by the Center is important but:

"1. Emphasis should be on the vegetable needs of low income people in Asia, not on the corporate needs of larger scale agri-business firms.

"2. Taiwan is in the northern latitudes. It should reach into the tropics and sub-tropics early on by developing outreach links into countries such as Thailand.

"3. The Center could contribute materially to multiplecropping efforts generally if appropriately tied in with the other centers.

"4. It may be necessary for the Center to change its charter in order to assure autonomy necessary for freedom of scientists to operate once the necessary funding became available.

"5. While TAC sees the Vegetable Center as a member of the Consultative Group family, TAC does not give it the same priority that it gives

Dr. Robert F. Chandler, Jr.

September 1, 1972

the other efforts presently being funded. Donors are encouraged to consider providing the capital that the Vegetable Center needs. Were this possible, the Center's requirements would be met in that operating funds are not sought."

I repeat, Bob, that the foregoing is my impression of Sir John's comments. Presumably the actual transcript will be available soon. In no sense should my comments be read as an official response to your question.

I am sharing your incoming letter and copy of my reply with Harold Graves in the hope that he will be in a position to speak more meaningfully to your question.

I share your disappointment in the decision of the Kresge Foundation.

With personal greetings to you and Sunny,

I am,
Cordially,

Lowell S. Hardin

Dictated by Dr. Hardin
but signed in his absence.

cc: Dr. John Pino
Mr. Harold Graves

Consultative Group on International
Agricultural Research

93d

August 29, 1972

Dr. Robert F. Chandler, Jr.
Director
Asian Vegetable Research and
Development Center
37 Nan Hai Road
Taipei
Taiwan

Dear Dr. Chandler:

As Mr. Graves already mentioned to you, we have distributed the July document, "The Asian Vegetable Research and Development Center," to the members of TAC, and the remaining copies to some other members of the Consultative Group. I enclose a copy of our mailing list from which I have crossed out those persons that already received a copy of your document. The number in front of some of the names on the list indicates the number of copies we usually send to these persons at their request.

I also enclose several copies of the covering note with which we have distributed the document and which you might wish to use for your own distribution.

With best wishes,

Sincerely yours,

Franz H. Kaps
Assistant to the Executive Secretary

Enclosures

FHK:mcj

FW

93d

August 28, 1972

To: Participants in International Centers Week
From: The Executive Secretary
Subject: Asian Vegetable Research and Development Center

Attached for information is a document, "The Asian Vegetable Research and Development Center", prepared by officials of that Center.

HG:lp

93d

August 24, 1972

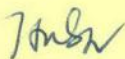
Dear Dr. Chandler:

We have now sent the July document, "The Asian Vegetable Research and Development Center", to the members of TAC; and I am attaching a list of the TAC members to this letter. We will be in touch with you shortly about the rest of the distribution.

Sincerely yours,

Harold Graves
Executive Secretary

Dr. Robert F. Chandler, Jr.
Director
The Asian Vegetable Research and
Development Center
P.O. Box 42, Shanhua,
Tainan, 741
Taiwan, Republic of China


HG:pa

93d

August 22, 1972.

Mr. Robert F. Chandler, Jr.
Director
The Asian Vegetable Research and
Development Center
P.O. Box 42, Shanhua,
Tainan, 741
Taiwan, Republic of China

Dear Dr. Chandler:

Thank you for your letter of August 9, which I found waiting for me when I got back to the Bank from the beach yesterday. I'll be glad to distribute copies of your AVC presentation when they arrive in Washington, and I'll let you know where they have gone.

The question of nominations to your Board is a bit more difficult, and before commenting on it, I'd like to get the views of Mr. Demuth, who is away at the moment. I'll write or cable you about this sometime soon after September 5; but it seems very unlikely that anything could be done about this in time for the meeting of your Board.

It was a privilege to meet you during International Centers Week, and I share your wish that this will be only the beginning of a long acquaintance.

Sincerely,

Harold Graves
Executive Secretary
Consultative Group on International
Agricultural Research



HG:pa

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THE FORD FOUNDATION

August 16, 1972

Dr. John A. Pino
Director for the Agricultural Sciences
The Rockefeller Foundation
111 West 50th Street
New York, N. Y. 10020
U. S. A.

Dear John:

This is just a note to inform you that I have received a reply from Mr. William H. Baldwin, President of the Kresge Foundation, informing us that their funds for the calendar year 1972 were fully committed and that there would be no opportunity to provide funds for the construction of our cafeteria-dormitory building.

Naturally we are anxiously awaiting word from someone as to what disposal the TAC made of our project when they went into a closed session in Washington on August 3rd and 4th.

With kindest personal regards.

Sincerely yours,

Robert F. Chandler, Jr.
Director

cc: Dr. Sterling Wortman
Dr. Lowell Hardin ✓

G3d

THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

CABLE ADDRESS:
"ASVEG" SHANHUA

P. O. BOX 42, SHANHUA, TAINAN, 741,
TAIWAN, REPUBLIC OF CHINA

TELEPHONE:
064-37131

August 9, 1972

Mr. Harold Graves
Executive Secretary
Consultative Group on International
Agricultural Research
1818 H St., N. W.
Washington D.C. 20433
U. S. A.

Dear Mr. Graves:

As you know from our conversations in Washington last week, Sir John Crawford asked that I send you 30 copies of the write-up on the Asian Vegetable Research and Development Center. I don't know if this quantity would be sufficient to provide each member of the Technical Advisory Committee and the Consultative Group with a copy, as I have not added up the number of the people involved. Anyhow, we have just sent the 30 copies to you by air parcel post, and I hope that you will be able to distribute them to the appropriate people.

There was one question which I wanted to raise with you and the Directors on Thursday afternoon, August 3rd, but I did not have an opportunity to do it. This has to do with the composition of the Board of Directors of the AVRDC.

I note that the International Potato Center has expressed its willingness to have the Consultative Group provide three of their directors. I was wondering whether this would be a proper procedure for our Vegetable Center to broaden its Governing Board. Now each member of the Board represents a country, but it would be better if we could have some persons on our Board who came from international agencies, or from countries outside of Asia. I talked with Frosty Hill about it and he suggested that I ask you whether you thought that the Consultative Group might be willing to propose a group of say six people, from among whom we could select three. This choice, of course, would be made by our Board.

Mr. Harold Graves

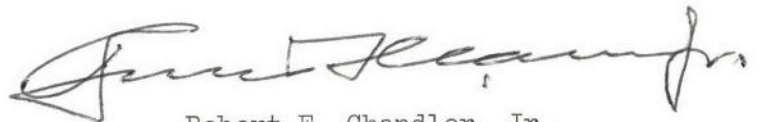
- 2 -

August 9, 1972

Our next Board meeting will be held on September 29 and 30, and I would be pleased to get your reaction to this matter at your convenience.

I enjoyed getting acquainted with you in Washington and I look forward to seeing more of you during the years ahead.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Robert F. Chandler, Jr.", written in a cursive style.

Robert F. Chandler, Jr.
Director

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COMMUNICATIONS
SECTION

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COMMUNICATIONS SECTION



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TO: DIRECTOR, FBI
FROM: SAC, NEW YORK (100-157344) (P)
SUBJECT: [Illegible]

RE: [Illegible]
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100-157344

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MANILA 71 24 1315 - April 24, 1972

Distribution

Mr. Graves

Consultative Group on International
Agricultural Research

LT

HAGOLD GRAVES

INTBAFRAD WASHINGTONDCUSA

92e
1 cross ref: 3d.

ASSUME YOUR CABLE REFERRED TO ASIAN VEGETABLE RESEARCH
CENTER STOP CHAIRMAN OF BOARD IS T H SHEN COMMA JCRR
COMMA 37 NAN HAI ROAD COMMA TAIPEI STOP JUST IN CASE
YOUR REFERRRED TO IRRI CHAIRMAN IS F F HILL FORD FOUNDATION
AND RALPH CUMMINGS WILL BE DIRECTOR AFTER JULY ONE STOP
IF INVITED EYE SHALL BE PLEASED ATTEND JULY 31 MEETING
REPRESENTING VEGETABLE CENTER

CHANDLER RICEFOUND

APR 25 3 57 PM 1972
APR 15 10 11 AM 1972
APR 15 10 11 AM 1972

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MAY 12 10 11 AM 1972

CHANDLER KICELOUND

REPRESENTING VEGETABLE CENTER

IF INVITED YOU SHALL BE PLEASED ATTEND YOUR 31 MEETING
AND YOUR COMMITTEE WILL BE DIRECTOR AFTER YOUR ONE STOP
YOUR REFERENCE TO 1981 CHAIRMAN IS F F HILL FORD FOUNDATION
COMMA 31 MAY HAS BOARD COMMA TAIBET STOP JUST IN CASE
CENTER STOP CHAIRMAN OF BOARD IS T H SHEN COMMA YOUR
ASSUME YOUR CASE REFERENCE TO ASIAN VEGETABLE RESEARCH

INTRODUCED WASHINGTON DC USA

HASOLD CRAYLES

GT

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dso

Agricultural Research
Consultative Group on International

Mr. OLIVER

Director

MANILA AT 24 1312 - 4647 54 1315

OBAMA HG PHMA 011

AAZCSC WADSD 2MU832 181-026\TG-100

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INTERNATIONAL DEVELOPMENT
ASSOCIATION

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

11AR 939
INTERNATIONAL FINANCE
CORPORATION

OUTGOING WIRE

TO: DEREK TRIEBE
MELBOURNE UNIVERSITY
MELBOURNE AUSTRALIA

DATE: February 18, 1972

CLASS OF
SERVICE: IT

COUNTRY:

TEXT:
Cable No.:

MOST GRATEFUL KNOW WHETHER YOU COULD BE AVAILABLE HEAD INTERNATIONAL TASK
FORCE TO INVESTIGATE REQUIREMENTS AND PRIORITIES FOR EXPANDED RESEARCH IN
ANIMAL PRODUCTION AND HEALTH IN WESTERN CENTRAL AND EASTERN AFRICA STOP
WORLD BANK HAS BEEN ASKED TO MOBILISE THIS TASK FORCE ON BEHALF OF ~~CONSULTANT~~
CONSULTATIVE GROUP FOR INTERNATIONAL AGRICULTURAL RESEARCH STOP TASK FORCE
OF FOUR OR FIVE MEN WOULD NEED START WORK WITHIN FOUR OR FIVE WEEKS AND AFTER
VISITS AFRICA, EUROPE, NORTH AMERICA WOULD PREPARE REPORT AND RECOMMENDATIONS
WITHIN SIX MONTHS TO TECHNICAL ADVISORY COMMITTEE OF WHICH SIR JOHN CRAWFORD
IS CHAIRMAN REGARDS

EVANS
INTBAFRAD

NOT TO BE TRANSMITTED

AUTHORIZED BY:

NAME J. Fransen

DEPT. Agriculture Projects

SIGNATURE *James M. Fransen*
(SIGNATURE OF INDIVIDUAL AUTHORIZED TO APPROVE)

REFERENCE:

CLEARANCES AND COPY DISTRIBUTION:

cc: Messrs. Evans & Fransen
Mr. Graves

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(IMPORTANT: See Secretaries Guide for preparing form)

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Checked for Dispatch: *FO*

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OPTIONAL FORM NO. 10 (Rev. 5-22-64)

REFERENCE

SIGNATURE

SIGNATURE OF INDIVIDUAL AUTHORIZED TO SIGN

DATE

10/10/72

NAME

J. L. LARSEN

AUTHORIZED BY

FEB 18 6 40 PM 1972

COMMUNICATIONS

NOT TO BE REPRODUCED

MR. LARSEN

CC: HERRICK, RALPH & LARSEN

STANDARD AND COPY DISTRIBUTION

INTERVIEWED
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IS CHAIRMAN HERRICK

WITHIN SIX MONTHS TO IDENTIFY VARIOUS COMMITTEES OF WHICH THE JOHN DEWEESE
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DATE February 18, 1972

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13 October 1971

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

TECHNICAL ADVISORY COMMITTEE

Second Meeting, Rome, October 19-22, 1971

A BRIEF STATEMENT ABOUT THE ASIAN VEGETABLE
RESEARCH AND DEVELOPMENT CENTER AND ITS
FINANCIAL REQUIREMENTS

(Agenda Item 13.e)

TAC SECRETARIAT

FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS

ROME 1971

A BRIEF STATEMENT ABOUT THE ASIAN VEGETABLE
RESEARCH AND DEVELOPMENT CENTER AND ITS
FINANCIAL REQUIREMENTS

Vegetables constitute an important dietary need of the human race, particularly because they furnish needed proteins, minerals, and vitamins not contained in sufficient amounts in the cereal grains.

Primarily because of poor cultural practices, insect and disease attack, and, in some cases, a lack of physiological adaptability to hot, humid climatic conditions, vegetable production in the tropics is well below what it should be for good human nutrition. There is not only too small an area of land devoted to vegetable crops, but also, in general, vegetable crop yields per unit area of land in the tropics are less than one-third of those in the temperate zone.

There is a real need for a sharply defined research program to develop disease and insect resistant varieties of the major vegetable crops that are adapted to the humid tropics.

In order to accomplish such a program, the Asian Vegetable Research and Development Center is being established in Taiwan. Its Board of Directors held its first meeting in May, 1971 and recently met again in September, 1971. Financial support has been pledged by the USAID, by the Governments of the Republic of China, Korea, Thailand, Japan, the Philippines, and South Vietnam, and by the Asian Development Bank.

The Rockefeller Foundation has agreed to provide the services of Robert F. Chandler, Jr. as its first Director, who is now serving in his last year as Director of the International Rice Research Institute.

The Republic of China has provided 216 hectares of land for the Center in the town of Shanhua, a few miles north of the City of Tainan in southern Taiwan.

It is planned to have a research center with a senior scientific staff numbering about 15 and a top administrative staff of about four persons.

Although the details of the research and training program will be worked out after the Center has been built and the initial staff has been hired, it is planned to organize its program in a manner very similar to that of IMRI. Significant problems limiting the production of the more important vegetable crops in the tropics will be identified and intensive research work will be conducted on their solution.

For example, it is essentially impossible to grow a good crop of tomatoes in the monsoon season in the humid tropics. This is because of the prevalence of bacterial wilt and certain virus diseases. There is evidence to indicate that if a world collection of tomato varieties is made, germ plasm will be found that has resistance to these diseases. Through an intensive breeding and testing program, varieties can be developed that will open new vistas to tomato growing in the tropics.

The growing of melons and many other cucurbits is restricted to the dry season in monsoon Asia primarily because of the prevalence of diseases in the wet season. A world collection of varieties of the several more important cucurbits needs to be made as a basis for a sound breeding program.

Nematode infestation is another limiting factor in the growing of many vegetable crops in the tropics, including okra, carrots and others. Methods of control and resistant varieties need intensive study in seeking possible solutions.

It is fully realized that the kinds of vegetables are so many that the work of the Center must be confined to relatively few of them at any one time. A carefully considered program must be developed selecting such important crops as tomatoes, melons, a few leafy vegetables such as Chinese

cabbage and lettuce, and several root crops that bulk large in feeding human beings. As was the case with the International Rice Research Institute in the beginning, we hope that prospective donors will be willing to make their initial grants on a basis of faith, thus giving the Center a chance to prove its worth during its early years of operation.

The new Director has agreed to spend one week a month in Taiwan as construction gets underway and to move there on a full-time basis in June, 1972.

Already efforts are being made to attract a particularly able American vegetable crop scientist to serve as Associate Director with the objective of assuming the Directorship after a couple of years or so. This cannot be announced as yet because negotiations are still under way. The candidate is a highly competent person with a successful record in both scientific research and administration, and with foreign experience as well. We are quite confident that we can attract him to the post, if we can be assured of adequate and continuing support.

As in the case of IRRI, the research program will be supplemented by a training program, as soon as the Center is built, staffed, and some research achievements have been made. Also outlying cooperative projects will be initiated in various Asian countries.

Although substantial financial contributions have been made to the Center, we do not have sufficient funds to complete the construction. It is the purpose of this note to request that the Technical Advisory Committee to the Consultative Group on Agricultural Research examine the need for this Center, and, if possible, call it to the attention of the Consultative Group at their meeting in December, 1971.

A statement of available funds and of estimated needs for 1972 is presented below.

Funds that could be used for building construction during 1972 are as follows:

<u>Sources</u>	<u>Amount in dollars</u>
China (Taiwan)	\$630,000
Korea	70,000
Japan	40,000
Thailand	75,000
Philippines	20,000
South Vietnam	2,000
Asian Development Bank	150,000
Total for Construction	\$987,000

Because there will be certain operating costs in 1972, only \$900,000 can be used for construction purposes.

A list of the building needs with cost estimates is given below.

<u>Item</u>	<u>Estimated Cost in U.S. dollars</u>
Administration Building (will include not only quarters for administrative offices but also facilities for agricultural economics, information services, extension activities, conference rooms, etc.)	\$230,000
Laboratory Building	250,000
Service Building (will include all facilities needed in connection with the operation of the experimental farm and with the maintenance of the entire physical plant and its major equipment.)	180,000
Cafeteria-dormitory building for feeding and housing trainees and some unmarried professional staff members	300,000

<u>(Item)</u>	<u>(Estimated Cost in U.S. Dollars)</u>
Guest house (furnished)	\$ 50,000
18 senior staff houses, completely furnished	500,000
Water tower, pumping station and complete water distribution system	200,000
Hard surface road system	75,000
Power house and complete electrical distribution system	100,000
Storm drainage and sewer system	70,000
Guard house and gate entrance facility	6,000
	<hr/>
(Subtotal)	(\$2,061,000)
Architects fee (4.8%)	98,928
	<hr/>
(Subtotal)	(\$2,159,928)
Development of experimental fields including irrigation and drainage systems plus farm roads	150,000
Furniture and decorations for administration building, cafeteria-dormitory building, laboratories, etc.	200,000
	<hr/>
Total	\$2,409,928
Funds now in hand	- 900,000
	<hr/>
Additional capital funds needed	\$1,509,928

This brief statement is intended only to allow the Technical Advisory Committee to become aware of certain essential features of the new Center. The Director would be most pleased to appear before the Consultative Group at the December meeting and present a complete plan for the Center, along with the architect's sketches.

The land is available, and working drawings and specifications are now being prepared by the architectural firm of Chen and Lee in Taipei. If donors can be identified who can provide the additional 1.5 million U.S. dollars, construction of the entire Center will be completed by December, 1972. An initial international scientific staff of top quality will be selected and hired by early 1973.

To do the job right, construction funds are needed in 1972. To delay it will mean a loss of time. If the support is granted, we can guarantee, as we did with the International Rice Research Institute, that a vigorous, high-quality, problem-oriented research program, conducted by a top quality international staff, will be well under way in 1973.

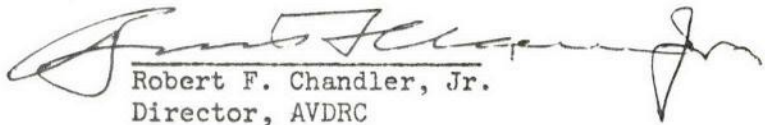
Future support of the operating program is partially guaranteed. The USAID has pledged a total of \$3,000,000 during the next five years, of which \$675,000 has been made available already for the purchase of U.S. goods and services. From this fund the initial laboratory equipment and supplies will be purchased, as well as vehicles, farm machinery, cold storage and crop drying equipment. Also American staff salaries will be paid from this fund. Representatives of USAID on the Board of Directors of the Center have stated that future releases from the \$3,000,000 will not be tied exclusively to U.S. goods and services, but can be used for core budget support.

The Asian Development Bank has allocated \$300,000 to the Center for the first two years. As noted above, \$150,000 will be used fully for construction purposes in 1972. The 1973 allocation will be untied and can go toward general operating costs. The Asian Development Bank officials have stated that they will be interested in supporting the Center beyond 1973 with project support.

The Republic of China (Taiwan), in addition to the \$630,000 for construction purposes and the purchase of the 216 hectares of land, will continue to support the Center's operating budget during the years ahead in amounts ranging between \$200,000 and \$300,000 annually.

It is expected that the initial grants of around \$70,000 from the governments of Thailand and Korea will be repeated annually, as will funds at some level from Japan and the Philippines. Japan has indicated that it would be particularly interested in furnishing Japanese-made equipment and a few well-qualified scientists.

It is our estimate that about \$500,000 annually for additional core support will be needed from other sources to supplement the above-mentioned funds. This would be a request for 1973.


Robert F. Chandler, Jr.
Director, AVDRC

October 7, 1971

REGISTERED

MAIL NUMBER 845

會員委合聯興復村農國中

JOINT COMMISSION ON RURAL RECONSTRUCTION

37 NAN HAI ROAD, TAIPEI, TAIWAN

CABLE ADDRESS 8515

TELEPHONE 37541

71-AV-1071

SEP. 25, 1971

Dr. Richard H. Demuth
Director
Development Services Department
International Bank for Reconstruction
and Development
1818 H. Street, N. W.
Washington, D. C. 20433
U. S. A.

Dear Dr. Demuth:

This is to acknowledge the receipt of your kind letter dated August 19, 1971. Taking the opportunity of convening the Second Board of Directors Meeting on September 10 and 11 in Taipei of the AVRDC, I took the liberty of reproducing your letter for the information of the members of the Board of the Directors of the Center. We all are very much encouraged by your interest in our regional effort.

The Board of Directors of AVRDC has approved the appointment of Dr. Robert Chandler Jr. as the first Director of the Center on September 10's Board Meeting. We have also discussed the construction plan and other rules and regulations for the operation of the Center. We plan to complete the construction work of the Center by June/July 1972 and at the same time, a group of scientists could be recruited to start the research and other operation work. For your information I enclose herewith one copy each of the Minutes of our Second Board Meeting and the general statement made by Dr. Chandler on his preliminary thinking of the operation of the Center.

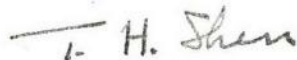
Both myself and all Board members are greatly encouraged by your information on the establishment of a Consultative Group on International Agricultural Research to be sponsored by the World Bank together with FAO and UNDP. In view of the recent breakthrough in new technology in agriculture and the urgent need

for accelerating agricultural growth in the developing country, I consider your action to organizing and mobilizing more human and financial resources to support agricultural research is very timely. On our part, we will try our best effort to establish AVRDC as a top-quality, even though small, institution to undertake the vegetable crop research. We like very much to cooperate with you in our common effort on this direction. At some point of time of not too distant future, we may come to you for a definite proposal to request your assistance to support our regional effort. While I will keep you informed on the progress of AVRDC, I like to request you to do us a favor, if it's convenient to you, by sending materials and documents of the International Consultative Group on Agricultural Research for our information and reference.

I can assure you that our regional effort on vegetable research and development will be integrated in your main-stream of international effort.

With warmest regards,

Sincerely yours,



T. H. Shen
Chairman, Board of Directors
AVRDC

Enclosure: a/s

SUMMARY RECORD
SECOND MEETING, BOARD OF DIRECTORS
ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER (AVRDC)

Time : September 10 and 11, 1971

Place : Auditorium, JCRR Building, 37 Nanhai Road, Taipei,
Taiwan, Republic of China

Attendance : Members:

Dr. S. C. Hsieh, Director, Projects Department,
Asian Development Bank (Observing)

Dr. Minoru Kajiura, Consultant, Fruit Growers'
Cooperative Association, Japan

Dr. Choi Chung-Il, Director, Horticultural
Experiment Station, Office of Rural
Development, Republic of Korea

His Excellency Arturo R. Tanco, Jr., Secretary
of Agriculture and Natural Resources,
Republic of the Philippines

Dr. Phit Panyalakshana, Director-General, Department
of Agriculture, Ministry of Agriculture,
Kingdom of Thailand

Dr. Fletcher Riggs, Assistant Director for
Agriculture, USAID Mission, Thailand

Mr. Nguyen Phuoc Don, Charge d'Affaires of the
Republic of Vietnam (acting)

Dr. T. H. Shen, Chairman, Joint Commission on Rural
Reconstruction, Republic of China

Observers:

Mr. Yukinori Shimamoto, Second Secretary, Embassy of
Japan, Taipei, Republic of China

Mr. Ruben Alvarez, Commercial Attache, Embassy
of the Philippines, Taipei, Republic of China

Mr. Philip W. Ruppert, American Embassy, Bangkok,
Thailand

Officers:

Dr. Robert F. Chandler, Jr., Director, International
Rice Research Institute

Dr. Robert Lee, Executive Secretary, AVRDC Board
of Directors

Mr. C. L. Luh, Chief, Plant Industry Division, JCRR

Mr. F. T. Chang, Senior Administrative Assistant,
JCRR

Presiding:

Dr. T. H. Shen, Chairman, AVRDC Board of Directors

Dr. Phit Panyalakshana, Vice-Chairman, AVRDC Board
of Directors

Recording:

Miss Fannie Hu, Senior Administrative Assistant, JCRR

At 9:15 on the morning of September 10, 1971, Chairman Shen called the meeting to order and extended his welcome to all the members for their participating in the Board meeting.

Introduction of Board Members and the AVRDC Director

Chairman Shen introduced the two new members of the Board, - Dr. Minoru Kajiura from Japan and Dr. Choi Chung-Il from Korea. Dr. Kajiura is now consultant to the Fruit Growers' Cooperative Association in Japan. He was formerly director of the Horticultural Research Institute of Japan.

Dr. Choi Chung-Il is now the director of the Horticultural Experiment Station of the Office of Rural Development of the Republic of Korea.

Chairman Shen then introduced the AVRDC Director, Dr. Robert F. Chandler, Jr. He said he was very grateful to both the Rockefeller Foundation and Dr. Chandler himself for his accepting the AVRDC Directorship.

Chairman Shen also introduced all the other members.

Statements by the New Members of the Board of Directors

Dr. Choi said he was very glad to be here and happy to have Dr. Chandler as the AVRDC Director. He hoped that a great progress and development would be made for the Center through Dr. Chandler's leadership and technical competence.

Dr. Kajiura said that as he had known Dr. Chandler for a long time, he was aware of the capability of Dr. Chandler as the director of IRRI, and was particularly happy to have him as the AVRDC director.

Congratulatory Messages

Chairman Shen said he was happy to receive two letters from the World Bank and the Cornell University congratulating the establishment of the Center and the appointment of Dr. Chandler as the Director of the Center.

Financial Contributions from Member Countries/Agencies

As the interim executive secretary to the Board, Dr. Robert Lee gave a brief report on the financial contributions from member countries/agencies.

It is expected that contributions from the Asian Development Bank will be made available soon since Chairman Shen just signed the agreement between the Bank and the Center last week.

As for financial contributions from the Republic of Korea, Dr. Choi stated that the first-year contribution in the amount of US\$75,000 would be made available in early November 1971 as it was already approved by the Council of the Cabinet Ministers and would be ratified by the National Assembly soon.

According to Mr. Ruppert, the U.S. contribution is not only obligated but also available for disbursement. However, there is a condition that the U.S. funds for the first year be used for U.S. goods and services, to which Dr. Chandler said there would be no problem since the Center will need to import a lot of such facilities from the States anyhow as air conditioners, automobiles, etc.

Mr. Ruppert further stated that the U.S. fund disbursement is not bound by bidding procedures either of JCRR or AID, which, Dr. Riggs said, was very unusual.

Statement by Dr. Chandler

Dr. Chandler said that it was an honor to have been asked to assume the leadership of the Asian Vegetable Research and Development Center.

In view of the fact that Dr. Chandler is presently occupying two jobs, he said this would be a disadvantage to the Center because there is a need for a full-time Director from the outset.

Dr. Chandler said he tends to be open and frank but he is sincere and wants to do a good job - nothing else in his mind except this.

After October 29, 1971 Dr. Chandler will be able to spend one week each in November, December, January, February and March working on the construction, personnel, and other matters of the Center.

He then outlined his basic thinking as follows:

1. Construction of the Buildings: Dr. Chandler emphasized the need for having high-quality buildings rather than mediocre ones. It is essential to have a good foundation and high-quality roofs that do not leak.

2. Personnel Recruitment: Dr. Chandler said it is imperative to be objective in personnel recruitment. People who are well trained, intelligent and able, and who are interested in doing institutional research work should be hired. In this connection, he stressed that personnel recruitment should be free of political pressures from any country.

Dr. Chandler expressed the opinion that AVRDC should seek funds from the same general sources as do IRRI, IITA, CIAT, and CIMMYT, the four other established international institutes or centers. He stated that he would be in New York in early October to attend a meeting of the directors of the other international centers and he would explore with some of the representatives of major donors the possibility of approaching the Consultative Group on Agricultural Research at their meeting in early December to seek additional support for AVRDC. Dr. Chandler expressed the opinion that the funds now in sight, optimistically amounting to US\$7,500,000 over a five-year period, are insufficient

to build, equip, and staff the Center. Although he was pleased that countries are contributing to the Center, he raised the question as to whether or not such contributions could be depended upon in future years - at least in adequate amounts.

3. Legal Status of the Center: Dr. Chandler said he presumed there was no problem regarding the legal status of the Center, and that the Chinese Government would see to it that the normal tax exemptions accorded other international centers by their host countries would be made available to AVRDC.

4. Staffing of the Center: Dr. Chandler proposed, in addition to a director, to have a deputy director, a chief finance officer and some kind of executive officer, all of whom should be Chinese, because of language problems that foreigners would encounter.

Regarding other personnel, Dr. Chandler expressed the opinion that considering the shortage of funds, the original proposed division chiefs should be eliminated from the initial plan, and the funds allocated for their salaries should be spent on getting first-class scientists. He felt that the original core should contain no less than one entomologist, one plant pathologist, one soil scientist, one agricultural economist and about four horticulturists with different areas of specialization. These, of course, would be assisted by a group of young Chinese college graduates. Dr. Chandler proposed that the Charter be amended so as to provide for an Associate Director, who, without any initial commitment, might succeed him as Director.

5. Recruitment of Top Specialists and Housing: In order to attract topflight specialists from all over the world to come to work for the Center, it is imperative that they be provided with housing at the Center site.

6. Retirement Plan: Another attraction to recruit topflight specialists is the provision of a retirement plan. The Center could have a contract with the International Institute of Education in New York so as to provide IIE retirement benefits for its senior staff. This would include a group insurance plan.

7. Time for Selection of Administrative and Scientific Staff: In Dr. Chandler's view, the Center should avoid getting scientists before facilities were available for their work. Construction of buildings, irrigation systems, roads, etc. should be completed before the scientific staff arrive. However, a Chinese farm superintendent should be hired as soon as the site is cleared. He would be engaged in land leveling, putting in the farm roads, etc.

8. Program for the Center: It must be realized, said Chandler, that in order to have a good international research center, it is a must for the Center to have its major operation at the home site first, and then later on, to have cooperative projects in other countries.

Regarding the training program of AVRDC, it should not be started until the Center has got well under way and we have some new knowledge and techniques to impart to others.

Remarks by Chairman Shen, Dr. S. C. Hsieh and Dr. Phit Panyalakshana:

Chairman Shen said that the statement made by Dr. Chandler was excellent. He holds the highest hope for the AVRDC. He also agreed fully to the high quality of building construction and selection of top scientists.

Dr. Phit appreciated Dr. Chandler's discussing so frankly about his responsibility and said he fully agreed with Dr. Chandler's ideas.

In addition to agreeing with the points made by Dr. Chandler, Dr. Hsieh felt that the Board should lay down a broad policy and direction but leave considerable freedom for the Director to carry out his work. In other words, freedom should go with responsibility. Dr. Hsieh also suggested that Chairman Shen write to the World Bank not only to keep it informed of the development of this Center but also as the first step to explore further financial support.

Dr. Chandler further proposed to work out a proposal including such specific points as we need no less than US\$1.5 million for the operation of the AVRDC each year so that we might get the Consultative Group to put in some actual capital money to place the Center in a better financial position in spite of the construction expenses.

Considerable discussion was made on this subject and Dr. Chandler said he would try to discuss with members the Consultative Group people in New York when he goes there for a meeting and, after his return from the trip to Manila on October 29, 1971, he would come to Taipei for a week to help work out the proposal. In the meantime, Chairman Shen will write a letter to the World Bank to keep it informed of the development of the AVRDC.

While Dr. Chandler would try his best to work out a proposal for the December 3, 1971 meeting of the Consultative Group, Dr. Hsieh felt that more time might be needed to work out a constructive and appealing

proposal. Since the next meeting of the Consultative Group would be in May or June of 1972, Dr. Hsieh felt that, instead of rushing out a proposal, more time should be taken if we could not complete it for December 3, 1971.

Technical Advisory Group

Dr. Chandler said that people for the Technical Advisory Group should be the ones who are close to scientific field and that the Technical Advisory Group would be useful during the early years of this Center.

Deputy Director of the AVRDC

Dr. Chandler nominated Mr. C. L. Luh to be the Deputy Director of the Center. Dr. Riggs moved that the Board accept Dr. Chandler's nomination to have Mr. C. L. Luh as the Deputy Director of the Center and Dr. Phit seconded the motion. Then it was unanimously approved that Mr. Luh be appointed the Deputy Director of the AVRDC.

Dr. Chandler said the duties of the Deputy Director would include day-to-day administration of the research program.

Remarks: As Article VII of the Charter was later amended (see Amendment of the Charter), the appointment of the Deputy Director was automatically changed to that of one of the Associate Directors.

Associate Director

Dr. Chandler proposed to have an Associate Director who would help in the operation of the Center as well as in international relations work. In this connection, Dr. Chandler said he would like to recommend Dr. Edwin Oyer of the Cornell University not only because of his scientific background and experience but also his fine personality.

A brief biographical sketch of Dr. Oyer is as follows:

- Undergraduate at Purdue University
- Ph.D. from Cornell University
- Worked in Europe upon receipt of some French scholarship
- Taught in Purdue University
- Head of the Department of Vegetable Crops in Cornell in 1966
- Project leader of the Cornell University Group at the College of Agriculture, University of the Philippines since July 1, 1971

Dr. Chandler also mentioned that a man of competence like Dr. Oyer is likely to be offered several jobs at the same time and that approach should be made to him at an early date.

The Board approved the recommendation made by Dr. Chandler and some approach will be made to find out whether Dr. Oyer is interested in the position.

In this connection, Dr. Lee pointed out that the position of an Associate Director was not provided in the AVRDC Charter. To create such a position requires an amendment to the AVRDC Charter.

Executive Officer, Finance Officer and Farm Manager

The Board decided that the nominations of these officers be taken care of by the Director.

Membership and International Participation of AVRDC

Dr. Chandler proposed to have a broader international approach in this regard. The Board members felt, in the meantime, that they should think about it and then do something about it later. The Board is of the opinion that the AVRDC should attempt to become a participant in the International Consultative Group on agricultural research formed by the World Bank, Rockefeller Foundation, etc.

Proposal for Exploration of Additional Financial Aids

The first step of exploring additional financial aid is that Dr. Chandler make contacts in New York. In the meantime, Dr. Hsieh said that a proposal should be prepared for presentation to the Consultative Group on December 3, 1971, if possible.

Dr. Chandler felt that they should not give up the countries which are represented here on the Board. Japan, for instance, should be in a position to help more than she does now, and she can supply technical personnel to the Center.

Establishment of Sub-centers in Other Countries

While Dr. Choi expressed strongly the need of setting up a sub-center in Korea, it was agreed that some sort of cooperative research program would be carried out between the Center and the Republic of Korea and other countries. Dr. Chandler also promised to take a trip to Korea after the Center is set up to see what the Center can do to help vegetable production in Korea and work out some cooperative experiments.

Rules, Regulations and Retirement System

The Board decided to fully authorize Dr. Chandler and Mr. C. L. Luh to establish Rules and Regulations of the Center for later confirmation by the Board.

Retirement System

Dr. Chandler suggested that the Center assign a contract with IIE to establish a retirement system for senior staff of AVRDC. As to the local staff, some retirement plan will be adopted and the JCRR retirement plan will be used as a reference.

Amendment to the Charter

The Board unanimously agreed to make the following amendments to the AVRDC Charter:

- 1) Section 3 of Article I will read as follows: "The Center shall have a Board of Directors, a Technical Advisory Group, a Director, two Associate Directors and such other officers and staff as may be considered necessary."
- 2) The third sentence of Section 4 of Article I will read as follows: "The Center shall initiate the establishment of at least one sub-center and/or experimental farm to carry out research and development activities pertaining to varieties of vegetables suitable not only for the tropical zone but also for the temperate zone within one year after the Center is formally founded."
- 3) In Section 2 of Article II, the word "majority" will be inserted between the words "by" and "vote."
- 4) In Section 1 of Article IV, the following sentence will be added at the end of the Section: "3. The Director of the Center shall be an ex-officio member of the Board of Directors."
- 5) In Section 4 of Article IV, the following sentence will be added at the end of the Section: "The Board may create a Financial Committee to be composed of the chairman, vice-chairman, the Director of the Center, and two additional Board members, which may be empowered by the Board to make decisions on its behalf subject to confirmation at the succeeding meeting."

6) Section 5 of Article IV will read as follows: "A special meeting of the Board of Directors may be called by the chairman or a majority of the members of the Board for a special purpose to be specified in the notice of the meeting."

7) Article VII will be amended as follows:

"Article VII

"The Associate Directors

"Section 1 - The two Associate Directors of the Center shall be nominated by the Director of the Center and approved by the Board of Directors.

"Section 2 - The two Associate Directors shall assist the Director in handling all affairs of the Center.

"Section 3 - One of the two Associate Directors shall act for the Director in case of absence or inability of the Director to perform his duties."

8) Article VIII will be deleted as a whole.

9) Articles IX, X, XI and XII will be changed into Articles VIII, IX, X and XI, respectively.

Date of the Next Board Meeting

It was agreed to hold the next Board meeting some time in July, 1972. The exact time of the meeting will be determined later.

Executive Committee Meeting

It was agreed that the Executive Committee meeting might be held at any time at the discretion of Chairman Shen and Director Chandler whenever it was deemed necessary.

Executive Secretary to the Board of Directors

With the Director and one of the Associate Directors appointed, Dr. Robert Lee who has so far served as Executive Secretary to the Board expressed his wish to be released from the job. The Board accepted Dr. Lee's resignation and decided that Mr. C. L. Luh, who had just been appointed as one of the Associate Directors, take over the responsibility as Executive Secretary to the Board.

Construction

Mr. Luh gave a brief report on the revised budget estimates for the AVRDC Construction Plan as follows:

	<u>Original estimate</u> NT\$	<u>1st revision</u> NT\$	<u>2nd revision</u>	
			<u>Without dormitory</u> NT\$	<u>Dormitory included</u> NT\$
Construction	24,000,000	45,530,000	40,890,000	47,890,000
Architect's fee (4.8%)	1,152,000	2,185,440	1,962,720	2,298,720
Contingency fund (approx. 15%)	--	7,156,560	6,427,280	7,528,280
<hr/>				
Total:	25,152,000	54,872,000	49,280,000	57,717,000

The above table shows a shortage of NT\$32.5 million. The estimated construction cost, although revised a few times, does not include furniture and landscape gardenings. Expense for farm machinery is also not included in the total budget estimate.

Dr. Chandler felt that there is a need for more budget not only in building construction but also in operations of the Center.

The Board accepted the second revision of the construction estimate and designated Dr. Chandler to phase it into several phases and start such items as he considers necessary.

Secretary Tanco pointed out that, as previously agreed, Dr. Chandler would try to explore some additional funds on his trip to New York for both building construction and operations of the Center.

Dr. Chandler expressed he would try to explore the possibility of obtaining an additional US\$1 million for construction and US\$0.5 million for operations, which would be needed for the Center.

Full and/or Advance Payments of Contributions by Participating Countries

In view of the budgetary constraints, Dr. Riggs proposed that the Board plead with each country to come up with its full payment and/or some advance payment. Both Secretary Tanco and Dr. Hsieh seconded the motion. It was then agreed that Chairman Shen, on behalf of the Board, plead with each of the participating countries for its full payment and/or advance payment.

In this regard, Dr. Phit stated that Thailand was ready to make its second payment. However, the Thai Government would need some encouragement in the form of getting some benefits from the Center. While Secretary Tanco felt it was a little premature to discuss about getting benefits from the Center, he suggested that detailed discussion on this topic be brought up at the next Board meeting by which time the Center would be established. Perhaps some extension and seed multiplication could be done for the participating countries at that time.

FROM THE OFFICE
OF THE EXECUTIVE DIRECTOR
FOR CHINA, KOREA AND VIET-NAM

477-2221
2222

Mr. Richard Denuith,

At long last, the Asian Vegetable Research and
Development Center (AVRDC) was formally es-

With the Compliments of

R. C. Chen

ablished in Taipei (temporarily) on May 24, 1971.
Attached herewith is the English translation of
a few Chinese newspaper clippings on this sub-
ject, and I hope they will be useful for your
reference.

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION
WASHINGTON, D.C. 20433

A 413
H2

June 7, 1971

Mr. P. A. Gram
Senior Agronomist
Policy Advisory Bureau
Food and Agriculture Organization
of the United Nations
Via delle Terme di Caracalla
Rome 00200, Italy

Dear Peter:

Asian Vegetable
Research and Development Center

Shortly after we spoke today I received the attached translations of Chinese newspaper articles on the above subject. I hope they will be of use to you.

Yours sincerely,

A. Kruithof
Development Services Department

cc: Mr. Evans/Fransen
AKruithof:pa

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The meeting was attended by Executive Directors for U.S.A., Thailand, the Philippines, Viet-Nam and Ambassadors of Japan and Korea, and chaired by Dr. T.H. Shen. There was a general discussion of the following topics:

- An Executive Committee will be constituted to take care of the execution of preparatory work of AVRDC. It is composed of Executive Directors of China, Thailand, the Philippines and U.S.A. Dr. Chung Tao Li, Secretary General of JCRR will serve as the Secretary General of the Executive Committee. The Chief Executive of AVRDC will be appointed at the next meeting of the Executive Directors tentatively scheduled to be held in the early part of September, 1971.

Source:- translated from the United Daily News of May 25th, 1971.

(2)
H. Oram

United Daily News.....May 23, 1971

ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

Vice President C.K. Yen pointed out at the opening ceremony of AVRDC yesterday that through the combination of scientific research and application of modern technology, AVRDC could offer not only the necessary nutrition needed for good health, but could also help to improve regional social order. He considered that this regional organization was essentially needed for eliminating starvation and eradicating communist infiltration. He mentioned further that the nutrition intake of most people in the Asiatic region is less than the minimum requirements for human body's normal health and growth. According to Vice President Yen, to supply fully the nutrition requirement of the peoples in this region in a short period was not easy. Therefore, he thought an efficient short-cut to improve Asian peoples' nutrition would be to help improve vegetables production, because both nutritionists and agricultural experts have found out that protein, Vitamin, mineral and yeast needed for human body's growth can all be well supplied from vegetables.

Vice President Yen opined that the nutritious components in vegetables are higher than those in animal protein and starch. He pointed out that all Chinese monks are vegetarians, yet their average life-span is longer than ordinary people. He stressed that Asian peoples would have to work harder in order to improve productivity and quality of vegetables.

Vice President Yen also praised AVRDC for its years of planning and tireless efforts which culminated in the final realization of establishing the AVRDC today with the enthusiastic support of an international organization.

In conclusion, he said that the Government of Republic of China has been emphasizing the need for developing scientific technology and importance in promoting agricultural and industrial development. He expressed his belief that AVRDC would reach its goal for improving Asian peoples' nutrition through the study of science and application of technology.

(3)
Mr. Gram

The Asian Vegetable Research and Development Center (AVRDC) was formally established yesterday morning.

The opening ceremony was held at the headquarters of Joint Commission for Rural Reconstruction (JCRR) in Taipei and presided by Dr. T.H. Shen, Convenor of the Preparatory committee of AVRDC.

The participating parties include seven countries, namely, Republic of China, U.S.A., Japan, Korea, the Philippines, Thailand and Vietnam, and the Asian Development Bank. The representatives who were present at the ceremony to sign AVRDC's Agreement are Mr. Nguyen Chiao, Chargé-d-Affaires of Vietnam, Shu-kai Chow, Foreign Minister of Republic of China, Dr. S.C. Hsiesh, Director of Projects Department of ADB and ambassadors of the other five countries.

Dr. Shen said at the ceremony that AVRDC, after eight years' unremitting efforts, had finally come to an Agreement which made the establishment of AVRDC possible. He said that he believed AVRDC would benefit the peoples of all the member countries in the Asiatic Region when it was formally established.

After the signing ceremony, each of the diplomatic envoys made a short speech. They all considered the establishment of AVRDC would be a good example of regional cooperation. They also hailed the Republic of China for her efforts in promoting and organizing the Center during the past eight years.

Mr. Walter MacConneky, American Ambassador to ROC especially praised Dr. T. H. Shen, Chairman of JCRR for his contribution in bringing about the regional cooperation. He emphasized the historical importance of the Center for enhancing regional cooperation and improving food nutrition of Asian peoples. He further expressed his government's support for the future operations of this international Center.

AVRDC is located in Tainan, Taiwan. The budget for the first five-year is estimated to be \$7.5 million.

(4)
Mr. Oram

ASIAN VEGETABLES RESEARCH AND DEVELOPMENT CENTER WILL BE
ESTABLISHED SOON

(Central News Agency) The proposed Asian Vegetable Research and Development Center (AVRDC) has now reached its final stage. The countries concerned will meet in Taipei next month (February) to discuss and coordinate the procedural problems and draft a promotional plan.

The meeting is scheduled to ^{be} held at the headquarters of the Joint Commission of Rural Reconstruction (JCRR) on February 16, 1971 and will be presided by Dr. C.H. Shen, Chairman of JCRR. The diplomatic envoys of Korea, Japan, Thailand, U.S.A., Vietnam and the Philippines, and the representative from the Asian Development Bank will attend the meeting.

The main purposes for establishing the Asian Vegetable Research Center are (1) to conduct research on vegetable production, (2) to train technical personnel, (3) to improve the productivity and quality of vegetables, and (4) to upgrade the food nutrition of Asian peoples.

The first phase of the Project will take five years to complete with a budget of US\$7.5 million. The AVRDC will be located in a farm of Taiwan Sugar Corporation in Tainan and will cover an area of 116 hectares.

To finance the Project, the USAID/WASHINGTON will contribute 40 percent of the total amount, the Republic of China, 30 percent, and ADB, 10 percent. Korea, Japan, the Philippines and Thailand will each contribute 5 percent.

Up to the present time, Thailand's remittance of US\$75,000 for her first year's allocation has been received. The rest of the participating nations and organizations will make further negotiation at the next meeting.

(Economic Daily News, Taipei, January 22, 1971)

FROM THE OFFICE
OF THE EXECUTIVE DIRECTOR
FOR CHINA, KOREA AND VIET-NAM

477-2221
2222

Mr. Kruthof
June 7, 1971

Mr. Richard Demuth,

Attached herewith I am sending to you some more
reference materials on "AVRDC" sent to me by

With the Compliments of

R. C. Chen

Dr. T. H. Shen, Chairman of JCRR, and received
only today. You may consider these papers as
official documents on "AVRDC".

RC
INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION
WASHINGTON, D.C. 20433

H2

Names of the Members of the Board of Directors
Asian Vegetable Research and Development Center

Chairman

Dr. T. H. Shen, Chairman,
Joint Commission on Rural Reconstruction,
Republic of China

Vice Chairman

Dr. Phit Panyalakshana, Director-General,
Department of Agriculture,
Ministry of Agriculture, Kingdom of Thailand

Members

Mr. Arturo R. Tanco, Jr., Secretary of Agriculture
and Natural Resources, Department of Agriculture
and Natural Resources, Republic of the Philippines

Dr. Fletcher Riggs, Assistant Director for Agriculture,
USAID Mission to Thailand, Bangkok, Thailand

Mr. Nguyen Van Kieu, Minister Charge d'Affaires,
Vietnamese Embassy, Taipei

Dr. Choi Chung-il, Director, Horticultural
Experiment Station, Office of Rural Development,
Republic of Korea

Japanese member - to be appointed.

CHARTER
OF THE ASIAN VEGETABLE RESEARCH AND DEVELOPMENT CENTER

ARTICLE I

Establishment and Organization

Section 1 -- The Asian Vegetable Research and Development Center (hereinafter referred to as the "Center") shall be an autonomous, philanthropic, nonprofit research and development organization established for the purpose of promoting production, marketing and utilization of vegetables in Asia.

Section 2 -- The seat of the Center shall be located at Shanhsia, about nineteen (19) kilometers north of Tainan City, in the Southern part of Taiwan, the Republic of China.

Section 3 -- The Center shall have a Board of Directors, a Technical Advisory Group, a Director, a Deputy Director, four or more Division/Office Chiefs to head the Divisions/Offices of the Center, and such other officers and staff as may be considered necessary.

Section 4 -- The Center will establish sub-centers and/or experimental farms in member countries as required and as resources permit. The host countries of the sub-centers and/or experimental farms shall provide counterpart and supporting staff, land and facilities necessary for the operation of the sub-centers and/or experimental farms. The Center shall initiate the establishment of at least one sub-center and/or experimental farm to carry out research and development activities pertaining to varieties of vegetables suitable for the temperate zone within one year after the Center is formally founded.

ARTICLE II

Membership of the Center

Section 1 -- Membership shall consist of all the countries/ organizations that have signed the Memorandum of Understanding for the establishment of the Center and have contributed to and participated in the establishment of the Center. Each such member will be entitled to join the Board of Directors.

Section 2 -- Membership shall also be open to other countries/ organizations that are dedicated to the common cause of the Center, subject to the approval of the Board of Directors by vote of the members of the Board. Non-contributing members shall not be voted to become members of the Board of Directors but may participate as observers.

ARTICLE III

Objectives of the Center

Section 1 -- The Center shall pursue any and/or all of the following objectives pertaining to vegetable research and development:

1. To conduct research on production and marketing programs and to assist participating countries in developing their own adaptive research programs.
2. To carry out training in production and marketing programs and to assist participating countries in developing more efficient training and marketing programs.
3. To develop and provide basic information on improved production and marketing for use in extension services in participating countries.

Section 2 -- The Center may also help its member countries promote their vegetable production through the following ways and means:

1. To supply free materials for trial in member countries;
2. To investigate and study problems encountered by member countries in the course of their trials; and
3. To offer other necessary assistance in case of necessity.

ARTICLE IV

The Board of Directors

Section 1 -- The Center shall be guided by a Board of Directors to be composed of members representing:

1. Countries that participate in and make financial contributions to the Center; and
2. Major financing agencies which contribute to the Center.

Section 2 -- The members of the Board of Directors shall serve as such without remuneration from the Center, but the Center may pay them reasonable expenses incurred in attending meetings of the Board.

Section 3 -- The Board of Directors shall meet at least twice a year in the principal office of the Center or at such places as the Board may determine.

Section 4 -- The Board of Directors shall have a chairman and a vice chairman to be selected from among the members of the Board by vote of the members of the Board present at the first meeting of the Board. The chairman and the vice-chairman of the Board of Directors shall have a tenure of office for a period of two years. The chairmanship and the vice-chairmanship will be rotated among the members of the Board of Directors.

Section 5 -- A special meeting of the Board of Directors may be called by the chairman or a majority of the members of the Board for a special purpose to be specified in the notice of the meeting, which shall be delivered to the members of the Board forty-five (45) days before the meeting is to be held.

Section 6 -- At meetings of the Board of Directors, a majority of the members of the Board shall constitute a quorum for the transaction of business. Except as otherwise provided in this charter, the decisions of the Board of Directors will be made by a majority of the members present and voting.

Section 7 -- The Board of Directors shall have the following powers and functions:

1. To act as the policy-making body of the Center and lay down or approve in principle its major programs;
2. To approve the budget and review the financial condition of the Center;
3. To review and evaluate the progress reports of the Center as may be submitted by the Director of the Center;
4. To receive financial aid from agencies for the operations of the Center as may be required;
5. To appoint members of the Technical Advisory Group and the Director, and to approve the Deputy Director and the Division/Office Chiefs of the Center to be nominated by the Director;

6. To delegate any or some of its powers to the Director and the Technical Advisory Group; and

7. To exercise such other powers and to do such acts as may be conducive to the achievement of the objectives of the Center.

Section 8 -- The Board of Directors shall consider means of ensuring that by the end of the first five years the Center will be able to obtain the financial resources necessary to its continued existence.

ARTICLE V

The Technical Advisory Group

Section 1 -- The Technical Advisory Group shall have three or five members to be appointed by the Board of Directors. The Director of the Center shall be ex-officio the chairman of the Group.

Section 2 -- The Technical Advisory Group shall have the duty to assist the Director of the Center in implementing and executing the policies and decisions laid down by the Board of Directors by offering technical advices to the Director of the Center, and exercising the powers and performing the duties as may be delegated to it by the Board.

Section 3 -- The Technical Advisory Group shall meet twice a year to review the technical aspect of the operations of the Center. Special meetings may be held upon call of its chairman or upon request of a majority of the members of the Group.

Section 4 --- The members of the Technical Advisory Group shall serve as such without remuneration from the Center, but the Center may pay them reasonable expenses incurred in attending meetings of the Group.

ARTICLE VI

The Director of the Center

Section 1 --- The Director of the Center shall be appointed by the Board of Directors for a period of at least three years and may be reappointed at the discretion of the Board of Directors.

Section 2 --- The Director shall be the authorized representative of the Center.

Section 3 --- The Director shall have the following functions:

1. Management, organization and administration of the Center;
2. Preparation of publications to be released under the name of the Center;
3. Coordination with agencies concerned as representative of the Center; and
4. Other functions as may be assigned to him by the Board of Directors.

Section 4 --- In case of absence or inability of the Director to perform his duties, the Deputy Director shall act for him until the Director is available or a new Director is appointed by the Board of Directors.

ARTICLE VII

The Deputy Director

Section 1 -- The Deputy Director of the Center shall be nominated by the Director of the Center and approved by the Board of Directors.

Section 2 -- The Deputy Director shall assist the Director in handling all affairs of the Center.

Section 3 -- The Deputy Director shall act for the Director in case of absence or inability of the Director to perform his duties.

ARTICLE VIII

The Division/Office Chiefs

Section 1 -- The Division/Office Chiefs of the Center shall be nominated by the Director of the Center and approved by the Board of Directors.

Section 2 -- The Division/Office Chiefs shall be in charge of the Divisions/Offices of the Center to carry out technical and administrative operations respectively.

ARTICLE IX

Staff

Section 1 -- All staff of the Center other than the senior officers specified above shall be employed by the Center upon the recommendation of the Director of the Center.

Section 2 -- Technical staff of the Center shall be recruited on as wide a geographical basis as possible.

Section 3 -- All staff, administrative and technical, shall be responsible to the Director and shall be under the general supervision of the Director and the direct supervision of their immediate supervisors.

ARTICLE X

Financing and Auditing

Section 1 -- Payment of funds committed by participating countries shall be made available to the Center prior to the beginning of each operational year of the Center or according to a payment schedule deemed appropriate by the governments concerned.

Section 2 -- Donation of funds from countries or international financial agencies may be made available to the Center at any time of the year.

Section 3 -- The Board of Directors shall arrange outside annual audits of the financial accounts of the Center to ensure that funds are properly used to meet the objectives of the Center.

ARTICLE XI

Miscellaneous

Section 1 -- This charter shall enter into force when it is signed by the duly authorized representatives of all participating countries shown in Article XII.

Section 2 -- The Center may terminate its operation by a resolution of the Board of Directors approved unanimously by all members of the Board of Directors.

Section 3 -- Withdrawal of participation from the Center by an individual member country shall be communicated in written notice to the Center at least six months prior to the beginning of the next fiscal year.

Section 4 -- In case the Center terminates its operation as set forth in the foregoing Section 2 of this Article, all buildings, equipment and other assets belonging to the Center and/or the sub-centers will be transferred to appropriate organizations of the host countries upon the concurrence and approval of the Board of Directors and the host countries.

Section 5 -- The official language of the Center shall be English.

Section 6 -- The Center shall have an official seal of a circular design on which the name of the Center shall appear.

Section 7 -- This charter may be amended or modified by unanimous agreement of the Board of Directors.

ARTICLE XII

Adoption and Approval

This charter is signed in the City of Taipei, the Republic of China on _____, 1971 by duly authorized representatives of the following countries/organizations:

Asian Development Bank _____

Japan _____

Republic of Korea _____

Republic of the Philippines _____

Kingdom of Thailand _____

United States of America _____

Republic of Vietnam _____

Republic of China _____

This file is closed as of
December 31, 1974.
For further correspondence,
please see 1975/77 files.