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Memo No 43.

Referring to my memos No  
16 - 17 and 20, I have the  
honor to transmit, herewith,  
Mr Jones' report relating  
to some wild lands in the  
provinces of Shimotsuri,  
Mitschi and Shimosa. In  
the same paper Mr Jones  
has also touched upon many  
matters which may be of  
found of general interest.

Respectfully submitted

C. W. Leitch  
Mr. E. Okuma Shigenobu,  
Minister of Finance, etc.

Wokei, 23 January, 1875.

Tokio, Jan'y 29<sup>th</sup> 1875

Your Excellency

Referring to my reports heretofore made on the wild lands of Sagami, Izu Simoga and Kai; I beg to submit the following on the same and kindred subjects relating to some wild lands situated in the provinces of Shimotsuma, Hitachi and Shimosa.

Mito is situated in the Northwestern corner of the province of Shimotsuma, at the foot of the Nasu range of mountains and at an elevation of about 2000 feet above the level of the sea. The Nasu range divides this province from that of Aizu, and forms the same chain with the Nikko mountains. A spur from the latter, with the exception of a short break across the Tonegawa valley, connects it with the Kuba chain and its spurs. On the East the dividing line between Mito and Shimotsuma, a spur of the latter, bounds the view from this standpoint. Within the boundaries of these mountains, low, circular ranges are seen, dividing the three above provinces into so many basins, from which the sea has retired. These basins, once formed so many bays, and the retiring of the water was gradual, as is witnessed by the existence of a greater depth of soil, as a general thing, in these basins and valleys, which are the most remote from the Bay of Yedo and the sea-coast. The formation of the soil; a black vegetable mould

resting upon an alluvial deposit. Ages before these bays were emptied into the sea, soil must have been formed on the surrounding mountainous chains and hills, and their gradual denudations washed and carried into these bays, from which, upon the retiring of the water, vegetation began quickly to form, and by the repeated processes of growth and decay, a rich black vegetable mould now covers what was once a waste of brutes.

From Smoto I began to make a partial examination of the wild lands so well known by the name of Nasa no Haru. Between Smoto and Gokozawa lies a tract of excellent pasture land for all kinds of stock. This range is nearly 2 sq. vis in extent, and in addition commands, as a summer pasture, the mountains of Nasa, which are quite free from brush, and covered with grass. This tract in places is covered with a scattering growth of timber, and several small streams of water course through it. The surface is rolling, soil deep and rich, and many small basins could be cultivated, as well as some table land. From here I passed to the plain known as, Uwachi, which is six vis long and two vis wide. The Nakagawa bounds this beautiful tract on the North, a belt of timber on the South, on the East by the Oshin-Raido and on the West a plantation of trees, at the foot of the Nasa mountains.

In describing the vegetation of Uwachi, it will

suffice, with the fewest exceptions, for the description of all of the Haras of Naew. The principal grasses are those known in Japan, as Kaya and Shiba, principally the latter, interspersed, but very sparsely with a grass resembling the species known as Sheep Fescue, together with a variety of the English rib grass. A small growth of Chumak the Sandokuri, which, as the name indicates bears three crops of fruit annually. These chumak shrubs, on an average, attain the height of about 3 ft, are composed of from three to six shoots, of not more than three quarters of an inch in circumference. There is also a small growth of white oak, the largest not exceeding four inches in girth. These are not thickly interspersed over the surface. In places there are none. The western part of this hara has a scattering growth of pine of a goodly size. The small growth of the Chumak and Oak, may be accounted for, to some extent, to the annual burning over, of this, indeed, as well as nearly all the other plains; but the varieties, in themselves are small.

I traced the path of an old canal, running for the distance of about 3 mi, centrally through this plain. This canal, I was informed, had been made over ~~two~~ hundred years ago, and seven villages were founded along its course. It was in use, however, only 3 years, when some break occurred, and the person, whom property it was, dying about the same time, and for the want of being repaired, both the villages and a cultivation were abandoned. The marks of the former

tells soil are yet visible

Immediately south of this is a hara known as Nishi no Hara. This beautiful prairie is 5 ris long and about 2 ris in width. The soil and vegetation the same as those of Owachi, with the exception of a small growth of hazel interspersed through the chestnut shrubbery. The Eastern part of this plain is quite free from brush. A belt of timber, from 20 chos to one ri wide, separates these two tracts of land. Within this belt of timber are many villages, and the land just under cultivation is situated within these woods. The soil cultivated is precisely of the same character as that of the Haras, and is consequently very productive. These two extensive bodies of land lie to the south and west of the town of Otawara.

Separated from Owachi, by a narrow plantation of pine and cryptomeria, and the Oshiro-Kaido is the hara of Nakatsugata, which is 2 ris long and 30 chos wide. The soil, if anything, deeper and better, as it lies a little lower than the former, and is clearer of brush. The Nakagawa bounds this plain on both the North and East and on the south by low hills, covered with trees. A short distance from this hara, to the south of the village of Odorezawa, there is a fertile body of land, 4 ris long and about 5 chos wide. On the road leading from Otawara to Nurobani, and just north of Okuzawa mura, is a hara known as Minami Kane maru. It is 3 ris long and about 7 chos wide. Through the south-western part of this

track is a running stream of water which empties into a Lake close to the road near to the above mura. This plain is surrounded by woods. From Saya, situated a few chos from Kurohara, on a road leading to Kutsingawa, I passed through a haru known as Kada no Haru which is more than 3 ris long and about  $1\frac{1}{2}$  ris wide. Not far from the center of this location is a lagoon about 2 chos wide. In some places the land is rolling, but generally level and susceptible of cultivation. Just north of the lagoon is a level track of land of considerable extent. This land lies between the mura of Saya and the Sabigawa. On the south bank of this stream is situated the mura of Futsuhara, from here to No no go the distance is  $1\frac{1}{2}$  ris. Between these two places the land is rolling but there are many places which could be cultivated. There are plenty of watering places for stock on this track.

At No no go there is a beautiful valley and to the west of this track, the hills are lower and the basins are more extensive. East of Nishi no Haru is a plain called Ueno Haru which is 5 ris long and about 2 ris in width. Its greatest length is from East to West - is quite level and the soil rich.

From Akutzu on the Kuningawa to Nishi no Haru, the distance, by a road called Kura Kato michi, running through Ueno Haru, is eight ris. Akutzu is the nearest point of water communication with Nishi no Haru and Owachio. Nishi dai no Haru is East of Ueno Haru and eight ris long by 3 chos

wide. The Southwestern part of this body of land, touches Akutzu on the Niringawa, to which point, at all seasons of the year, boats ply between it and Yedo. Having water communication with the Capital, gives great value to this fine body of land; The Niringawa, in its course, after leaving this point, runs nearly parallel to it, and is only separated by a belt of timber, of about 30 chos wide. Not far from it, is a hara called, The Meadow of Hosono, one ri in length, and about 5 chos wide.

Immediately East of the Town of Ubagai is a body of table land 1 $\frac{1}{2}$  ri in length and about 20 chos wide. The soil is excellent, and only awaits the plough to develop the riches, which lie beneath its sod. Upon this tract there is no other growth than that of grass, with the exception of a few scattering wild-rose bushes. This place is called Ubagai no hara, and in the North-Eastern of which, are three small lagoons. Just North of this hara there is a body of land, half a ri square in extent. All these tracts just mentioned, and those described, are situated within the limits of the Tschigi New.

In passing from this New to that of Niharu, I crossed the Shikha range of mountains. The Western and North-Western sides of this mountain and all the spurs issuing from it, running <sup>through</sup> the Northern part of this New, are well covered with grass and a species of small hazards. This range is peculiarly well adapted to the pasturing of the Angora goat, and would support

very numerous flocks, within the limits of these mountain ranges.

On the Mito-Naido  $1\frac{1}{2}$  ri from Ischikura is a body of land known as Migi Momi no hara, which is 10 ri long and one ri in width. This tract is covered with the same vegetation as that of the other haras.

Leaving the Mito-Naido at Hara-Kawa, I took the road leading to Kuigasaki, and at the distance of about 2 ri came to a part of the Onna-halli hara, containing, perhaps, about three quarters of a square ri. Nearly adjoining this, and just north of a temple known as Onna-halli is a fine body of land, containing about six thousand tan. The surface of this tract is almost entirely free from brush. In these localities I was accompanied by the Waisawan of the Ranches. The means of water communication with these two tracts is by the Tokaigawa, and thence passing through a rice flat. The distance, this way, would be about  $1\frac{1}{2}$  ri. These places could also be reached by the Mito-Naido, but the distance is greater.

In Echigo Ken I visited the old horse-pastures of Shimosa, and more especially the extensive plain, known as Yamagisawa, as most of these wild lands have been disposed of, there would be no interest in describing them, but before closing this report, I will revert to this plain. At least, one third of the area of Shimosa and Hitachi is in a wild state.

The different tracts of land mentioned, are parts of the plains known as Nasu no hara: beginning at



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The foot of the Kasu Mountains they are continued through the Tschigi, Nihara, Niharu and Tschiba Rivers to the shores of the bay of Gedo. These extensive tracts, for the most part, are only separated by narrow belts of timber, and all of which without any very great outlay of money, could be connected by good roads. I have already shown how they are connected with the Capital by water.

In consulting journals, and examining maps, and from the best information I could derive, I estimate the area of these plains, at one million, one hundred and twenty-eight thousand ten, and taking the average distances from Tokio to these lands, they would not exceed, but little over, 20 ais.

These extensive bodies of land are surrounded by all the beauties of natural landscape, and industry and art has hedged them around with a girdle of forest. The climate is good. The high range of Kasu protects them from the cold North and Northwestern winds, which blow during four months of the year. The other eight months the wind comes from the South-East, but blows from what quarter it may, there is protection from either mountain or woods, and more especially for live-stock.

I now beg to call your Excellency's attention to this particular water shed. The Nakagawa and its branched runs to the Northward and Westward of the Northwestern plains of Kasu, and the Hingawa touches the plain described as Gishi dai no haru, at Atsugi. The tracts which could be irrigated by the Nakaga, are:

|               |   |          |    |   |    |       |
|---------------|---|----------|----|---|----|-------|
| Kishi no Haru | 5 | Ris long | at | 2 | "  | tride |
| Owachi        | 6 | "        | "  | " | 2  | "     |
| Sakatzuka     | 2 | "        | "  | " | 30 | cho   |

The area of these three tracts, is over three hundred and fifty-one thousand two hundred tan. Now at a very trifling expense could the waters of the Sakagawa and its branches be made to cover the whole of the above, and convert them into rice-lands. At a place called Kuruiso, on the Sakagawa water could be introduced to irrigate the valley of Sakatzuka. The length of this canal would be about 15 cho, that being the distance between Kuruiso and the upper end of this tract. The same water, which would be brought into Owachi, could also be made to irrigate Sakatzuka. Intelligent natives, well acquainted with these localities, estimate the expense of making the necessary canals at about fifty thousand dollars. Now let the benefits flowing from this outlay be considered. What are they? If rice were exclusively cultivated the Government would receive a tax say, of two dollars & fifty-cents per tan, I assume this rate, although, from the best information I can obtain, the tax paid on rice-lands is higher than this. But at this rate, the tax on the above land would amount to eight hundred and seventy-seven thousand five hundred dollars (\$877,500). This calculation is barely solely on rice-culture. For an immediate return and accession to the revenues of the country, nothing else cultivated could so quickly command this result. But let us look a little into the future, and see if half of this land were planted in Tea and Mulberry trees, and

The other half appropriated to miscellaneous pro-  
 ducts and live-stock, if greater revenues would  
 not <sup>flow</sup> into the Public Treasury, and a larger share  
 of prosperity inure to the people. One half of this  
 area planted, in Tea and Mulberry, the former,  
 after the space of ten years, will pay a yearly profit  
 of fifty dollars per Tan. The latter, will begin to  
 pay, in the fourth year, and I am informed that, the  
 returns obtained from the cultivation of these two pro-  
 ducts are about the same. Assuming fifty dollars  
 per Tan to be the amount realized, a gross product  
 of eight millions seven hundred and fifty-five  
 thousand five hundred dollars is produced. A tax  
 of ten per cent on this production, and that would be  
 lighter than that which the rice-farmer now pays,  
 would yield a revenue of eight hundred and seventy-five  
 thousand five hundred dollars. The tax on the whole,  
 if cultivated in rice would only yield two thousand  
 dollars more. The whole only paying that sum over,  
 the half. The other half would pay a tax of 14 cents per  
 Tan, the present rate imposed on dry land; at this  
 rate that tax would amount to twenty-four thousand  
 five hundred and fourteen dollars. Making the tax  
 on land and miscellaneous products, yield nine  
 hundred thousand and fourteen dollars; being twenty-  
 two thousand five hundred and fourteen dollars,  
 in favor of other productions over that of rice. In this  
 calculation no account has been of the tax which  
 would be derived from the live-stock

After examining the question in its financial as-  
 pect and relation to the revenues of the country, it  
 is important that the two classes of cultivators should  
 be canvassed and compared. It is difficult to  
 discuss this question, without encountering some pre-  
 judices; as the rice-field, in Japan, has been invested  
 with, almost, a sacred character, and even now,  
 it is considered as, a sort of disgrace, to disprofite.  
 Until a very recent period, it was the measure of all  
 values, and the reward for all services rendered,  
 in both public and private capacities. All incomes  
 were estimated in *Stokus* of rice. Before Japan was  
 in communication with the outer-world it might  
 be, that she considered her very existence depended  
 upon this cereal; but notwithstanding the sanctity  
 with which it was invested, the labor bestowed on  
 its culture, the care with which it was garnered, there  
 are records, in the history of this Empire, of desolating fa-  
 mines. If during this period of her seclusion, other  
 cereals had been cultivated to a greater extent, and  
 maize more generally introduced the calamity of famines,  
 if not entirely averted, might have been greatly mitigated,  
 for when the rice-crop failed, the other cereals might  
 have been produced in abundance. As these cereals being  
 grown in different seasons, from that of the rice, might  
 be quite propitious to their growth and maturity. In  
 those countries where this cereal is grown with so  
 much devotion, labor and assiduity, it is a notorious  
 fact that, those countries are very weak and very

poor. None of the cereals grown by man requires so much unremitting care and untiring labor, and none yield, in proportion to the labor bestowed, so poor a reward to the husbandman; hence eighty per cent of the Japanese farmers are poor, and the other twenty per cent are not rich. I would not be understood as being in favor of ceasing to cultivate it, but would urgently advise the settling of the wild lands and their cultivation in those cereals and productions, which do not require so much labor to raise them. In cultivating the dry land, man can call to his aid the horse, and make use of the necessary agricultural implements. To the wet rice-field none of these aids to human labor can be applied. When the other cereals will have been produced in abundance, they will be found cheaper as articles of food than rice, and owing to their cheapness, to a very considerable extent, will be substituted.

But it may be said that by this substitution of food, a surplus of rice will be raised, and that it will become reduced in value. When this state of things will have <sup>come</sup> to pass, the area cultivated in rice, will become reduced, and other products which pay better, will, to that extent, take its place. Since the Government is now endeavoring to commute the tax in kind, on rice, into money, it will become indifferent about that which is produced on the land, and the farmer will consult his own interests as to the use he will make of his fields. But it may be suggested, after producing the other cereals

in abundance, why not export the surplus rice-crop? This is a vital question, and should not be lightly treated. The chief objection to the exportation of rice, and this will apply to all the cereals, will be found that the manure cannot be returned to the soil; hence there will be a gradual impoverishment taking place. Owing to the non-exportation of cereals from this country, have the Japanese farmers been enabled to preserve the fertility of their fields. In no other country, excepting perhaps some parts of China has this been done. The general impoverishment of the soils of European countries, in not having returned to them the properties abstracted, ~~the~~ importance of which the Japanese farmer so thoroughly recognizes, and acts upon, has created a great demand for Peruvian Guano; which, because first known in Europe in 1840. - Up to the present time, nearly three hundred millions of dollars, in value, have been expended from Peru to the different countries of the world.

It behoves Japan to engage in more varied industries, and ~~then~~ make the period of exporting her surplus cereals as short as possible. By preserving the fertility of her soil, food will be cheap, and <sup>the</sup> will, therefore, with great advantage, be enabled to engage in manufacturing enterprises.

By reference to the Customs' Reports, I find that Japan, under the head of price goods, one of the items, woollens, imports about six million dollars in value, yearly, while extensive sheep-walks are uncropped and unimproved. She imports two millions ~~two~~ <sup>two</sup> humana & twenty-five thousand -

sand dollars in value of sugar, while hundreds of  
 acres of land are lying untouched, which are so  
 admirably adapted to the growth of the sugar-hut,  
 from which all the sugar needed for her consumption  
 could be extracted. Thousands of dollars worth of  
 butter and cheese are brought here, while her luxuriant  
 pastures are suffered to wither and decay, and  
 I could mention other things which she could  
 supply herself, instead of bringing them from abroad.  
 Now we see that if the rice area became reduced, more  
 profitable and necessary productions can take its place.

Prosperity is the result of varied industries.  
 In this digression we have seen that miscellaneous  
 products yield larger revenues and hence con-  
 duce more to the general prosperity.

In my travels through several provinces of the Empire,  
 I have observed that in the tea and silk districts,  
 the people live in better houses, are better clad  
 and surrounded by more comforts than the rice-  
 farmer. and in intelligence there is the same  
 disparity as that, which, divides them in their con-  
 dition. Let us compare the difference and cha-  
 racter of their work. The rice-farmer, women and chil-  
 dren are seen puddling the ground, mixing the green  
 manure with the soil, which thus requires to be tramped  
 down, preparatory to the transplantation of the rice.  
 In doing this work they are sunk knee-deep in  
 the muddy field. The ground is in the same  
 soft condition, when the transplanting takes place, and

in most cases water covers the ground, when the fruit of their hard toil becomes fit for the sickle. After this they have to carry it on their backs to the place where the grain is separated from the straw, then place it on mats to season; and after all these laborious processes, comes the hard labor of pounding, cleansing, and fitting it for the mortar or the bowl. and until another crop has been transplanted, Time and the Seasons aid not.

Now let us turn to a more pleasing scene of human industry, where no pity is excited and no compassion elicited, but rather looked at with happiness of such a lot. We will go from the wet rice-fields to the dry land. To make the Earth ten-fold her riches, it shall be turned over with the plough, and not with a hoe. A horse shall draw this simple, but effective ~~instrument~~, and one man by merely holding it, and guiding the horse shall accomplish more, than four strong men with the use of their heavy hoes. The first thing to be done, of course, after building a habitation - is to prepare the ground for the Tea and Mulberry plantations, and from the very moment the tea seed is sown and the Mulberry cuttings put in the ground, the farmer, whom I now introduce, begins to get rich. For him, after this first labor, Time and the Seasons work. Every morning he gets up a richer man. Whilst he is buried in sleep in the dark and silent night, these plants, so to speak, are at work for him. He leaves a sufficient



Space between his tea-bushes and mulberry trees for his horse to pass, and pull a cultivator, to keep the grass and weeds from growing and stealing the food from his plants. In a similar way he prepares his little fields of millet, maize and wheat by only following his plough and directing his horse. He has a small enclosure, in which he keeps a cow, to give him milk, and half a dozen sheep to supply himself and family with food and warm clothing. Besides, these useful animals will supply him with manure, to make his tea and mulberry plants grow together with all such productions as he may grow.

He will suppose that three years have passed, this the fourth year; the eight tea plants in mulberry, will begin to yield him an income, and this year too he will be able to sell enough of tea to reimburse him for the cost of the seed. For there are also eight tea plants in the latter. With these proceeds, some little addition is made to the house, and a few more comforts in one thing or another obtained. The cow too, by this time has become a grandmother and has two issues, besides, and the sheep have grown to be a little flock, at least of about thirty head. Whilst the rice-farmer and family are working in the muddy-field, the other is shearing his sheep and feeding his little worms. Which of them can draw the largest share of happiness, from the objects immediately surrounding them? In witnessing the wonderful

transformations of the silk-worm, from the time the egg is hatched until he forms his glassy habitation and spins his silken store, what happy reflections must arise in the mind. He watches the playful gambols of his little lambs, and his pity is exalted in contemplating these innocent, useful creatures. Then the cow gives her big pailful of milk, for which his gratitude is evoked; and wherever he may cast his eye over his little farm, it always rests upon some object of beauty, profit and interest. But how is it on the other hand? When the rice harvest is over, that farmer looks on a muddy, watery waste, and is only reminded of weariness in the past, and the hard toil awaiting him in the future. For him the Sun and the Seasons only bring him nearer to the grave; However widely the surroundings of the two may differ, if possible, the difference in their fortunes, and happiness is in greater contrast.

We are now approaching the tenth year, when the Rice will begin to yield a handsome income. The eight Cane planted, apparently so long ago, will, this year, yield a return of at least four hundred dollars. A state of the most perfect independence has been attained. During this period he has been witnessing a constantly developing prosperity, which must have gladdened his heart, and cheered and encouraged him to persevere in his labors. I have been sketching, but very imperfectly, the future farmer of Japan. I have omitted to mention, many products which if cultivated would

have added to his comfort and wealth; but alas! I have drawn, too true, a picture of the actual one. In this very lengthened digression it must not be forgotten that after showing the difference between miscellaneous productions, and the special culture of rice, the object then was to show the difference in condition of the two classes of producers. From what has already been said, it appears that the Time and the Seasons, for the rice-farmer, only serve him, from the time he plants his rice in June, until he reaps it in November, a period of five months, whilst the former receives the same beneficence for 12 months, and inasmuch as the productions of the one, are of greater value than those of the other, in the same ratio are the beneficial effects of the Seasons, bestowed. Besides, the incertainty of the seasons, may seriously affect the one, and not the other. From this view, it may be seen, why exclusively rice-growing countries, and exclusively rice-growing farmers cannot be continuously prosperous. The Government has recognized this uncertainty, in passing decrees, taxing the land, instead of its productions; otherwise there would be no permanence or constancy in its revenues. The leading production of Japan will be tea and silk. Upon my late visit to the country, I was frequently asked the question; if the price of tea were not likely to decline in value. My answer was always in the negative. Just ninety-nine years ago, my country had only a popu-

lation of three millions - we now number 42 millions, and at present we purchase almost all of the tea exported from Japan - We will continue to grow, both in wealth and numbers, and will require all the tea that Japan can raise, and as fast as she can grow this product will she be able to find a market for it. The same may be said of her silk. The world will always have need of it. Both of these products may become somewhat lower in price, but these other productions being raised in greater abundance in Japan, there will be a corresponding diminution in their value, and thus the same relative profit will be maintained for the producer.

I must now call your Excellency's attention to the existence of a company of ~~Samurai~~ Samurai, turmeric farmers. In the plains of Yamagisawa there is an organization, styling itself, Dokoichu - united land company, formed about five years ago. They are all of Sakawa, and province of Shimosa. It seems that through the late Daimio, Prince Kōta, they obtained a tract of land, and formed themselves into a company, under the above designation. The land in its unimproved state, was valued only at two hundred and forty dollars. The same land, now, since it has been partially cleared and planted in tea and mulberry trees, is estimated to be worth nearly two thousand dollars. Among the 480 persons composing this association are two Haros, and the rest are the former retainers of that Prince. This number is divided into six sections of eighty persons,

each one of them work five days at a time, then another takes its place, so that there are, always, eighty men kept at work. Quite a large tract of this land has been planted, and more ground is being constantly prepared, to be used for the same purpose. As the Tea and Mulberry trees are approaching maturity the shares of the company constantly advance in value. Now, these gentlemen unaided by labor and unaided by any agricultural implements, have given a value of seventy-two thousand dollars, to a property, before any labor was bestowed on it, was only worth two hundred and forty dollars. This company is worthy of some special recognition by the Government. However interesting these particulars may be in themselves, the most important considerations are; that 480 samurai, most of them having relinquished their pensions, and have become, voluntarily, tillers of the soil. Here is a noble example set before all of the same class, in the Empire. In my journeying through Japan, I have come, much, in contact with this class, and I think that I can pretty well interpret their feelings, and should the Government pursue a more liberal policy towards them, it has in its power to convert this intelligent class of its citizens into farmers, and such farmers, as I have sketched in this report. But they must be supplied with agricultural implements, some live-stock, and they must also receive some instructions. These in fact are the settlers for the wild lands, and they are the ones who are yet destined, to become the chief producers, and

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who will add so immensely to the wealth, power and prosperity of the Empire.

I shall not dwell upon the financial aspect of this question, the importance of converting pensioners into producers. its benefits are too patent not to be seen.

If this paper had not, already, attained such great length, I would take the liberty of offering some suggestions, and indicate how a new class of farmers could be created, by supplying them with the necessary implements, and introducing the horse, as a power, in the tillage of the soil, and thereby enable one man to accomplish more work than four men do now; for the horse is considered to be equal in power to the exertions of four men. The difference between the employment of man and the use of the horse is, that these animals work, and scarcely obtain the return of the food expended in their working; while the human laborer exacts wages besides his food. To the latter a profit has to be paid, to the former a bare subsistence.

It is said that a man's real office in the world, is that of Engineer, his real power is mental. It is a waste of power for him to take upon himself that which can be better, and more cheaply accomplished by brute force and matter. It is impossible for a State to increase in wealth, when no surplus, but that of bare necessities - just enough to bridge the span, separating harvest from harvest is produced, after the producers pay their dues to the Government. Human labor

unaided by any other power, cannot, only in a favored soil and benignant climate, do even this much. By the surplus product of labor, only, is a nation's wealth increased. Let the power to produce be increased, in that same ratio will the national wealth be augmented.

Besides settling the wild lands, works of Internal Improvement demand the attention of the Government. The Longawa one of the most important rivers of the Empire, and one which drains one of its richest valleys, triennially overflows its banks destroying human life and property to a fearful extent. In consequence of which the rich rice flats, subject to these ever recurring inundations, are but very lightly taxed, as the farmers expect to lose them all every three years, and were the regular taxes imposed, this rich valley in many places would be, without the inducement of light taxation, be found without cultivators. These were the accounts given me by Mr. Leuda, who, conversed with the inhabitants living on the banks of that beautiful stream.

The remedy would lie in draining Subana Lake, whose waters, I was informed, being banked up against the Longawa, preventing its flow, in consequence of being thus impeded in its course, it overflows its banks. Subana Lake is 7 ri long and will average one ri in width. If the line of the old canal were found impracticable, by which its drainage would be emptied into the Hennigawa, a canal leading

to Hundabashi Kawa, might be found quite practicable.

By the drainage of this Lake, a body of (rich) land, say, about one hundred thousand Tsen could be turned into rice-land. This in itself would be a great consideration, and the reclamation of so much good land as this, would be of great public benefit. But as this would secure the Tonegawa from overflowing, those lands could be assessed and made to pay their full share of the taxes. I was informed that this Lake lies 30 ft. above the bay of Gedo. It is only an Engineer however who can determine this point. This is a work of such vast importance, bearing as it does, so much on the general prosperity that I very earnestly invite the attention of the Government to this project. I believe too that the navigation of the Tonegawa, could be greatly improved, at the expense of a very small outlay, thus facilitating commerce and cheapening transportation. This leads to the consideration of one of the very greatest wants of Japan - Roads. It may be laid down as an axiom that no country can prosper, no State become prosperous, without those necessary avenues of communication, by which its commerce can be rapidly circulated. Let the proportions of domestic exchange be compared with those of the foreign trade, or the difference in magnitude, between the commerce carried on among the people of one nation with each other, and that which is carried on by them with foreign nations. Last year the whole foreign



Trade of this country amounted to about 35 millions of dollars. During the same period the amount of the Commerce Japan carried on with herself, must have exceeded eight hundred millions of dollars, and domestic exchange is considered the most profitable, by causing the division of labor and consequently increasing production. This great commerce is carried on between the country and the towns. Good roads and rapid communication cheapen transportation. The produce of the farmer being bulky, this class is the most affected by high rates. The rice grower, within a mile of Tokio brings as much money as that which comes from a distance of 50 ris. But the price of the latter must generally not only pay the expense of raising, and bringing it to market, but also afford the ordinary profits of agriculture to the farmer. By making better roads, as has been already stated, or opening new channels of communication, transportation becomes cheaper, and this inures to the benefit of the producer. I need not amplify this subject, illustrations and proofs of this statement can be found in all works treating on political economy.

Now, in conclusion I will bring before your Excellency's mind the pressing wants of your Empire.

- 1<sup>st</sup> The settling of the wild lands. These lands should be surveyed, and some unit of measure adopted by which their divisibility could be easily resolved into even numbers. The allotments should not be so small that the horse could not be advantageously used in cultivation, together with keeping a cow and a

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few sheep. The future prosperity will depend, largely, upon the character of the legislation, which, will be applied to the crown lands.

2<sup>nd</sup> The introduction of sheep in such numbers as would, in a degree, be commensurate with the great wants which they are intended to supply.

3<sup>rd</sup> The cultivation of the sugar-beet. The sugar imported, yearly, amounts to two and a quarter million of dollars. The soil of Japan is admirably adapted to the growth of that beet, especially the wild lands, as the season in which the seed is sown, manure is not required. To give some idea of the extent of this business as carried on in Prussia; that Government derives a revenue of eight millions dollars, annually, by imposing a tax of seventeen cents on each one hundred pounds of those roots. In Shimosa, the sweet potatoe is cultivated to a vast extent and pays the farmer nearly anything in return for his labor. Now, if the sugar-beet were introduced, and to a certain extent substituted for it, the farmer would receive a higher reward for his toil. But in this case it might be said that potatoes would be advanced in price; but sugar would become reduced in value, and herein is found the compensation which would redound to the advantage of all, and Japanese, and not Chinese, - for nine-tenths of the sugar imported comes from China. - would derive the benefits arising from manufacturing, and thus a large sum of money would be kept in the country to stimulate and advance other interests.

4<sup>th</sup> The importation of Foreign Bulls, to improve the native breeds. About eight hundred head of cows are slaughtered monthly and consumed in the cities of Tokio and Yokohama. The average weight of these animals, I suppose, to be about 325<sup>lbs</sup> making in all a consumption of 260,000<sup>lbs</sup>. It would not be far out of the way to state that, one third of this quantity is consumed by natives of this country. The former traditions and dietetics of India, which were imparted upon this country, in regard to the killing of animals, and eating their flesh is by a superior way of thinking, beginning to be generally disengaged. It is evident that the animals upon which, man in part subsists are destined for violent death, because they cannot make any provision against old age, from which, and lingering starvation, they must die. As more reasonable views are coming to be entertained on this subject, it is natural to expect that the consumption of flesh will largely increase. From the best information I can derive, I must conclude that by the slaughter of so many cows, the stock is rapidly diminishing. The effect of crossing the native breeds with the foreign stock, would be to greatly increase the size. The average size of Japanese cows, will not weigh over 325<sup>lbs</sup>, whereas the half-bred, resulting from the cross would weigh 500<sup>lbs</sup> and as further crossed and improved would be increased in both. The cost of raising larger animals is, almost, imperceptible; but the difference

in price between the steer that weighs 600<sup>th</sup> and one that weighs only 400<sup>th</sup> would be in an exact ratio to the weight.

Besides the importance attached to the increase of cattle, on account of the meat, their hides would furnish the material for making leather, the impurities of the latter, together with the boots, shoes and harness amounts to one million dollars, annually. We have left out of the consideration, the milk, butter and cheese which could be produced, and on account of the absence of the former, I can positively state that there is a great infantile mortality throughout Japan. The sheep, which are slaughtered in the above cities, come from China, and yet Japan can raise that useful animal by the millions!

#### 5<sup>th</sup> Works of Internal Improvements.

I could not demonstrate the utility of such works, and their importance, in a manner more effective and striking than by bringing one of the Nations, with which your Empire has held such long intercourse, to view. Holland. This country was by nature a wide morass, in which oozy islands and savage forests were interspersed among lagoons, and shallows; a district lying partly below the level of the ocean at its higher tides, subject to constant overflow from the rivers, and inundations by the sea. Such is the picture drawn of that country, by a distinguished historian. That country is so well known

I need not describe the fertile meadows, which have been wrested from the sea. The descendants of those who walled up the ocean, are now contemplating the drainage of the Guyder Zee, a work that will require the expenditure of many, many millions of dollars and many years to accomplish.

A celebrated French economist, I believe, said that he who made two blades of grass grow, where but one grew before, was a benefactor of his race. Now, what must he be considered, who turns a watery waste into fertile fields?

Let us see the wealth, which would be created by the very insignificant expense attendant upon the draining of Samban Lake. About one hundred thousand tan of fertile rice land would be reclaimed, thereby the price of rice land, now situated on the shores of that lake is sixty two dollars & fifty cents per tan (\$62.50) at this price the Empire would be enriched by this improvement, in the sum of \$6,250,000. I have already alluded to the effect that the drainage of this lake would have on the Tonqouan valley, and I have, also, shown that if the plains of Nishi No Kuru, Oouchi and Natutzuka were reclaimed, that the revenue, which would accrue to the Government from taxation, yearly, would amount to a little over nine hundred thousand dollars.

The cost of moving the productions of this country, owing to the bad roads, must be an enormous charge on its produce. It is calculated that one man can

can only move two hundred pounds, over a level road, in the space of one hour, the distance of one English mile. One horse, in the same time, will move eighteen hundred pounds, or do that, which would require the united strength of nine men. Nearly the same disparity exists between horses pulling a loaded vehicle, and pushed horses. If good roads were made, ~~at least~~ nine-tenths of the number at present engaged in carrying burdens upon their shoulders, and pack-horses would be released from such work and could find some profitable employment. We will suppose the existence of a little village of ten farmers situated 5 ri from Tokio, and each of them in possession of a horse, with which they transport their produce to the city. Now, each one of them has a horse-load to take to market, they then leave home, each one leading his horse, and in going and returning, certainly, lose one day's time. If one of their number had a wagon and two horses, he alone could move the produce carried by the whole, and in a much shorter time. Suppose that they should say to the man owning the wagon; it will take you nine hours to go and return, if you will carry our packs, each one of us will work one hour on your farm for doing us this service. Thus would the labor of nine men and eight horses be saved and turned into some profitable channel. Now each of these men would have to go to the city, at least once a week, or four times a month, but by the use of the wagon, thirty-six days' labor, each month, would be gained.

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by the little town. Such a calculation as this may well be applied to the whole Empire, and its magnitude and the benefits, which would flow from saving so much labor and directing it properly would soon be felt and seen.

France, to-day owes very largely her great prosperity to works of Internal Improvement made and projected by the Great Napoleon. As a great Commander he understood and appreciated the value of man, and utilized him to the extent of his physical power of endurance. In his capacity as a civil ruler he recognized the same principle of utilizing man - Statesmen are but as the Generals of a Nation. If they have too many idlers in camp, too many engaged in transporting provisions to their troops, and many others of the Army uselessly employed, by so much is the effective force weakened. A Nation from these ~~same~~ <sup>like</sup> causes becomes an entrenched Camp. Among the Nations of the West, good roads are considered of the first necessity. Peru with only 3 millions of inhabitants has expended over 100 millions of dollars on roads. Besides removing such a heavy tax on production, and giving the benefit of a market to those who are distant, the price of living in the grand centers of population becomes reduced, for the people are enabled to send their products to market, which they were unable to do, before these new channels of communication were opened to them. Near Otawara in Shimotsuma a large pine

filled and squared ~~can~~ be bought for an ichibu, which would be worth ten or twelve dollars in Tokio. It is so of charcoal and many other things which could be sent from that vicinity. Besides, the more perfect the net-work of national communication the more consolidated becomes, Empire. Nothing so sensibly affects the value of real estate as good highways and Railroads, but the first always precede the last. With the appreciation in realty, the rate of interest, too, always becomes lowered, and owing to the absence of this societary motion in the East, interest has always maintained excessively high rates. In a few paragraphs like these, such important questions cannot be discussed, and to make them plain and evident require both proof and elucidation.

#### 6<sup>th</sup> Manufacturing Industries.

Under the head of price goods, the Levant among the items of Imports into Japan, - wools, amount to nearly six millions dollars annually. A nation, without raw material, necessary machinery, or skilled labor is placed at a very great disadvantage: in this case, the wisest course to pursue, is to first gain the raw material - to have it so to speak on the ground. The community possessing the raw material has the greatest of all charges, transportation, in its favor, and this advantage is in proportion to the distance from which the supplies are drawn, the cost of moving them, together with all its attendant expenses. Last year I had the honor of submitting my views on the subject of the intro-



duction of Sheep into Japan; since, from a longer residence, and a wider range of experience in this Country, I can more than confirm what was then stated -

In a few years, by adopting a wise system of Sheep-husbandry, and importing the breeds best adapted to the herbage and climate, Japan can supply herself with the necessary material, with which to begin this necessary branch of industry. To be prosperous there must be a diversity of labor and of industries. The nearer the consumer and producer are brought together the greater the degree of prosperity that will inure to both.

If Japan makes the proper use of her resources and wisely directs her people, she can raise herself up to immeasurable heights of prosperity, power and grandeur, and if she read her destiny aright, - such is her geographical position on the Globe, and wisely accepts that destiny so plainly indicated and secretly felt, she may give laws, and regenerate a large portion of the human race -

To-morrow, the Ruler of Japan, will be governing an educated people - a people changed by education, whose individuality will be developed through the possession of a more cultivated intellect, with more progressive ideas with higher aims and wider aspirations. Prepare the Empire for them. Anticipate rather than wait. Let those great works of national progress begin, and a career of usefulness and dis-

direction be opened to the coming race -

There are only two elements through which wealth, power, and national prosperity can be attained - Man, and Land. Japan possesses them, but does not utilize them. Let the consequences of their new utilization be reflected upon - No further step in progress, no increased revenues, no wealth acquired to satisfy the new wants created by an advancing civilization. Let the present Rulers anticipate the rising ambition of the Nation, and now, interpret its future wants and aspirations -

I beg to acknowledge through your Excellency the kindness with I was treated by both Korea and people. My special thanks are due to Mr. Luda by whom I was accompanied on this journey.

Yours Excellency's  
Obedient Servant  
D. W. A. Jones