

Developments in the breeding
new varieties

PVP AT VINASEED



Forbes
Best under a billion

FAST500™
Top 500 Fastest Growing Enterprises

50 TOP



TOP10

Best Vietnam
Listed Company

PART I.

SEED INDUSTRY IN VIETNAM



PART II.

INTRODUCTION OF VINASEED



PART III.

PLANT VARIETY PROTECTION



PART IV.

DEVELOPMENTS IN THE BREEDING
NEW VARIETIES

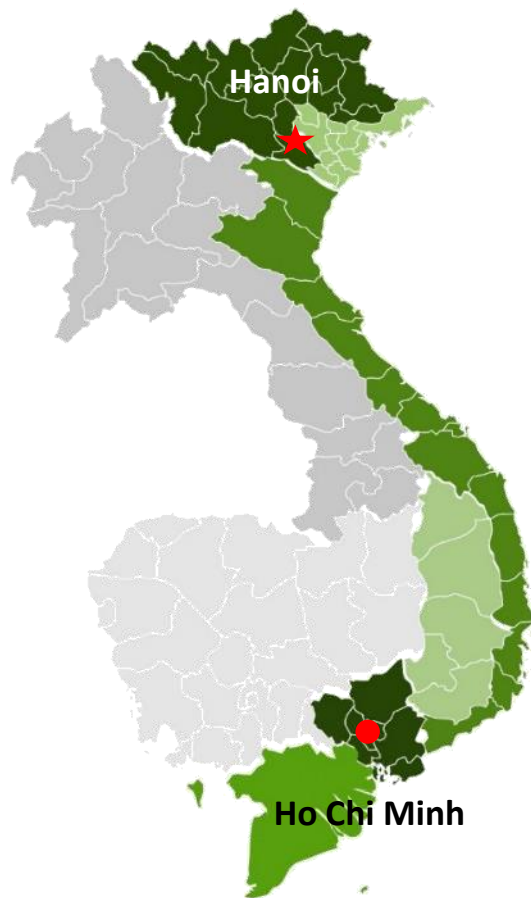




PART I.

VINASEED GROUP

SEED INDUSTRY IN VIETNAM



29,1% **Labor Force**
(63,3% labor force in rural area)

11.9% **Total GDP**

2.88% **GDP Growth rate**

53.22 **Bill. USD export**



Vegetable:
3.36 Bill. USD **↓ 5.0%**



Coffee:
4.06 Bill. USD **↑ 32 %**
(1.78 Mill. Tons)



Rubber:
3.31 Bill. USD **↑ 1.0 %**
(2.14 Mill. Tons)



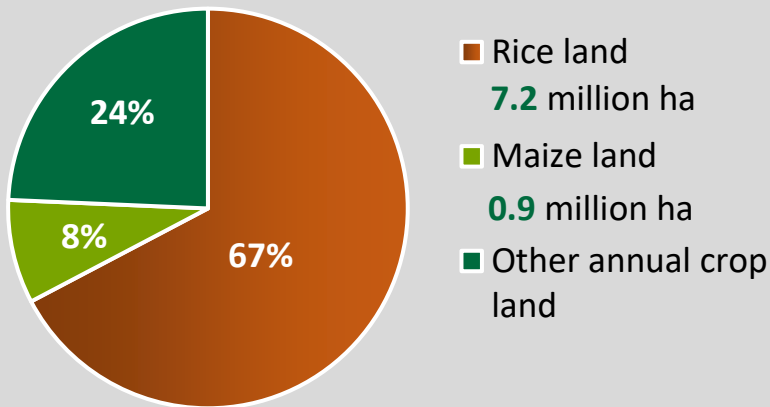
Rice:
3.46 Bill. USD **↑ 5.2 %**
(7.1 Mill. Tons)

Source: GSO, MARD, 2022

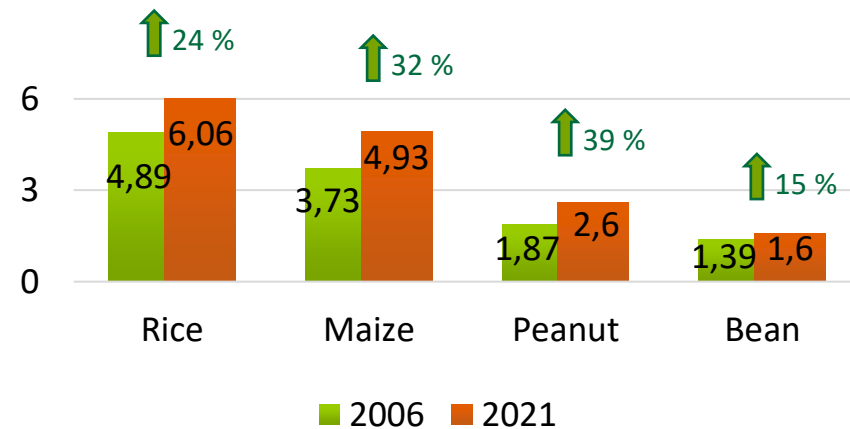
- Agriculture accounts for **11.9%** GDP (2022), **2.88 %** GDP Growth rate (2022) and **53.22** Bill. USD export value in 2022 (increase **9.3%** compared to 2021).
- **29,1%** workforce at agriculture industry
- The proportion of value-added product is low, Lack of premium quality products, Weak competitiveness

10.8 million ha land for annual crop production

AGRICULTURAL PRODUCTION LAND

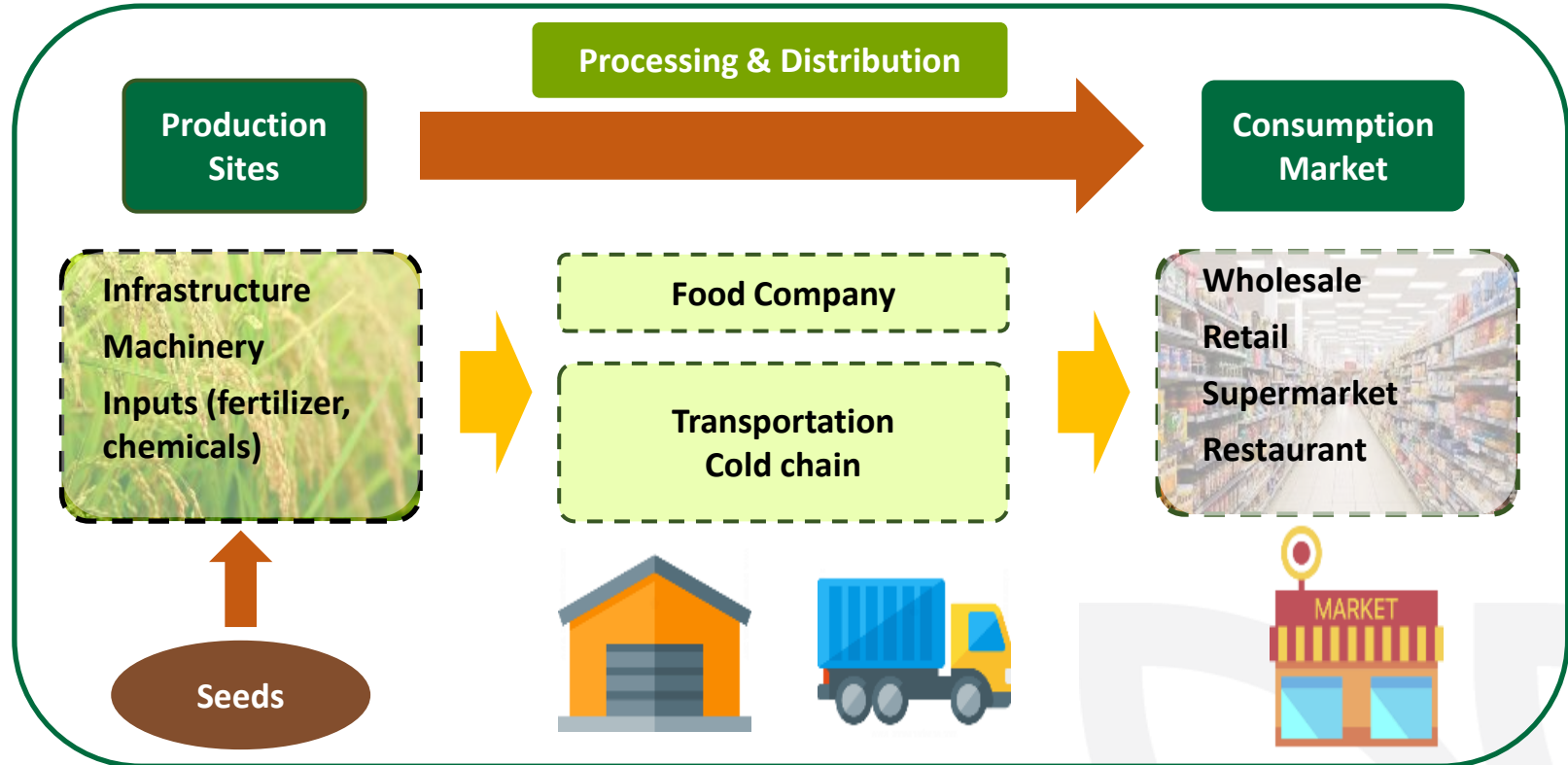


Average Yield (ton/ ha)



Source: GSO, 2021

- Climate change leads to key issues of agriculture and crop seed industry such as: extremely cold weather in the Northern provinces; drought, heavy rain and flood in the central provinces; especially drought-parched in the Central Highlands, and severe saline intrusion in Mekong River Delta. It is required to improve seeds adapting with climate change.
- Agriculture restructure and work force shipment causes the decrease of agricultural production land faster and faster than in the past. Increase the demand of high yield and high quality crop seed in order to ensure food safety.



- To solve problems in terms of low value of agricultural production and improving quality of seeds, putting seed production in a food value chain become a strategic and necessary solution in Vietnam.
- Seeds are essential at the upstream of the Food Value Chain.
- High quality seeds are crucial to start target production, decide quality of commercial products.
- Without qualified seeds, effective and efficient food value chain cannot be implemented.

PART II.

VINASEED GROUP

INTRODUCTION OF VINASEED GROUP

1. VINASEED GROUP INTRODUCTION



HEAD OFFICE

No. 1 Luong Dinh Cua Street, Phuong
Mai Ward, Dong Da District, Hanoi,
Vietnam



1968

Established



2016

Leading Group in
Seed Business

2011

Science and
Technology
Enterprise



2022

VINASEED GROUP



ACHIEVEMENTS

Forbes

Best under a billion

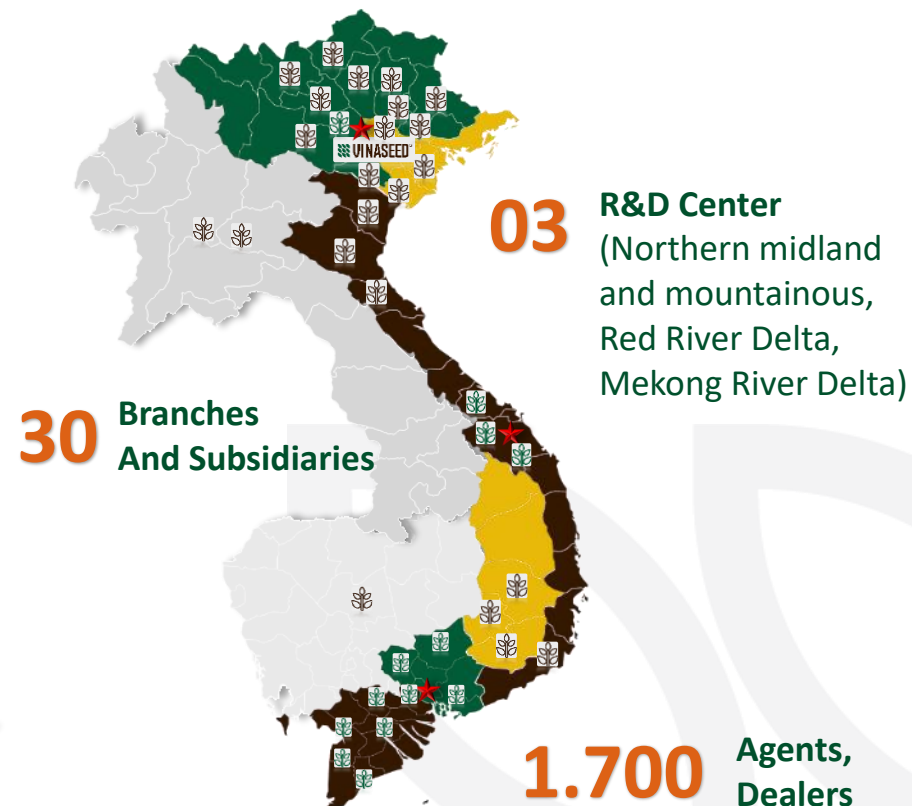
TOP10

Best Vietnam
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50TOP



FAST500
Top 500 Fastest Growing Enterprises



1,000

Employees
(95% Graduate and Post-
Graduate level)

2. BUSINESS AREA



Research, select, produce
and trade crop seed



Transfer high-tech agricultural
technical services



Produce and trade agri-products
followed by value chains

79.8 Mill. Revenue
(31/12/2022)

100.000 Tons of Seed

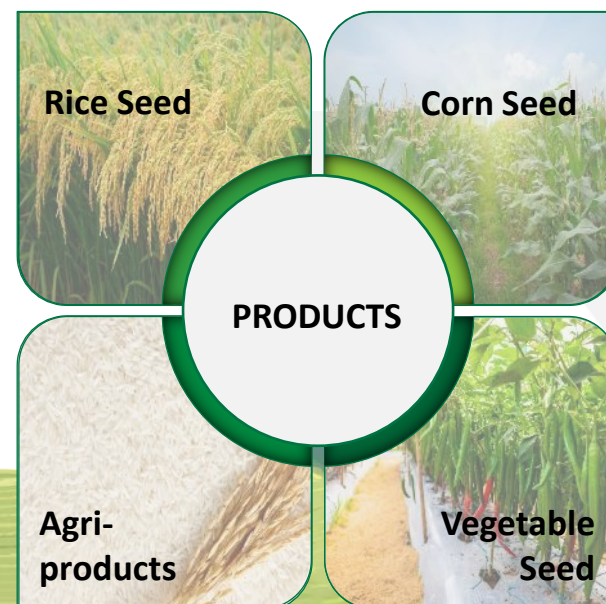
80% Revenue from copyright
products

04 In TOP 10 Popular Crop
seed in Vietnam

02 Rice varieties for
Rice export

- Inbred seed
- Hybrid seed

- Rice
- Melon



- Edible corn seed
- Animal feed corn

- Tropical Vegetable

3. PRODUCTS

RICE SEED

INBRED SEED



HYBRID



CORN SEED

EDIBLE SEED



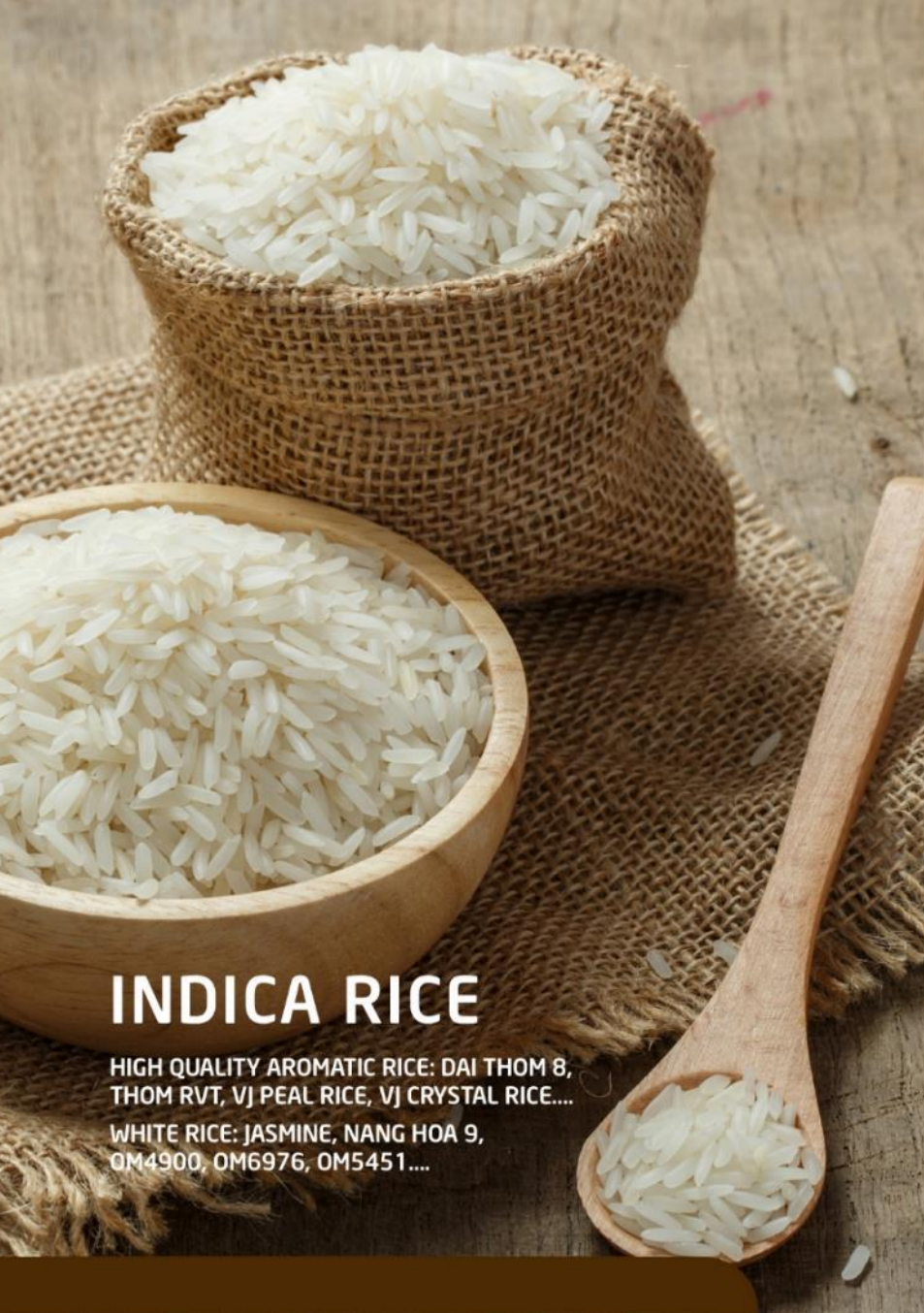
ANIMAL-FEED SEED



VEGETABLE SEED

TROPICAL SEED





INDICA RICE

HIGH QUALITY AROMATIC RICE: DAI THOM 8,
THOM RVT, VJ PEAL RICE, VJ CRYSTAL RICE....

WHITE RICE: JASMINE, NANG HOA 9,
OM4900, OM6976, OM5451....

JAPONICA RICE

KOSHI HIKARI, DS1, J01, PD9...





NUTRITIONAL RICE

PHUC THO BLACK RICE
PHUC THO RED RICE



GLUTINOUS RICE

AN GIANG GLUTINOUS RICE
CAI HOA VANG GLUTINOUS RICE



JAPAN MELON



PART III.

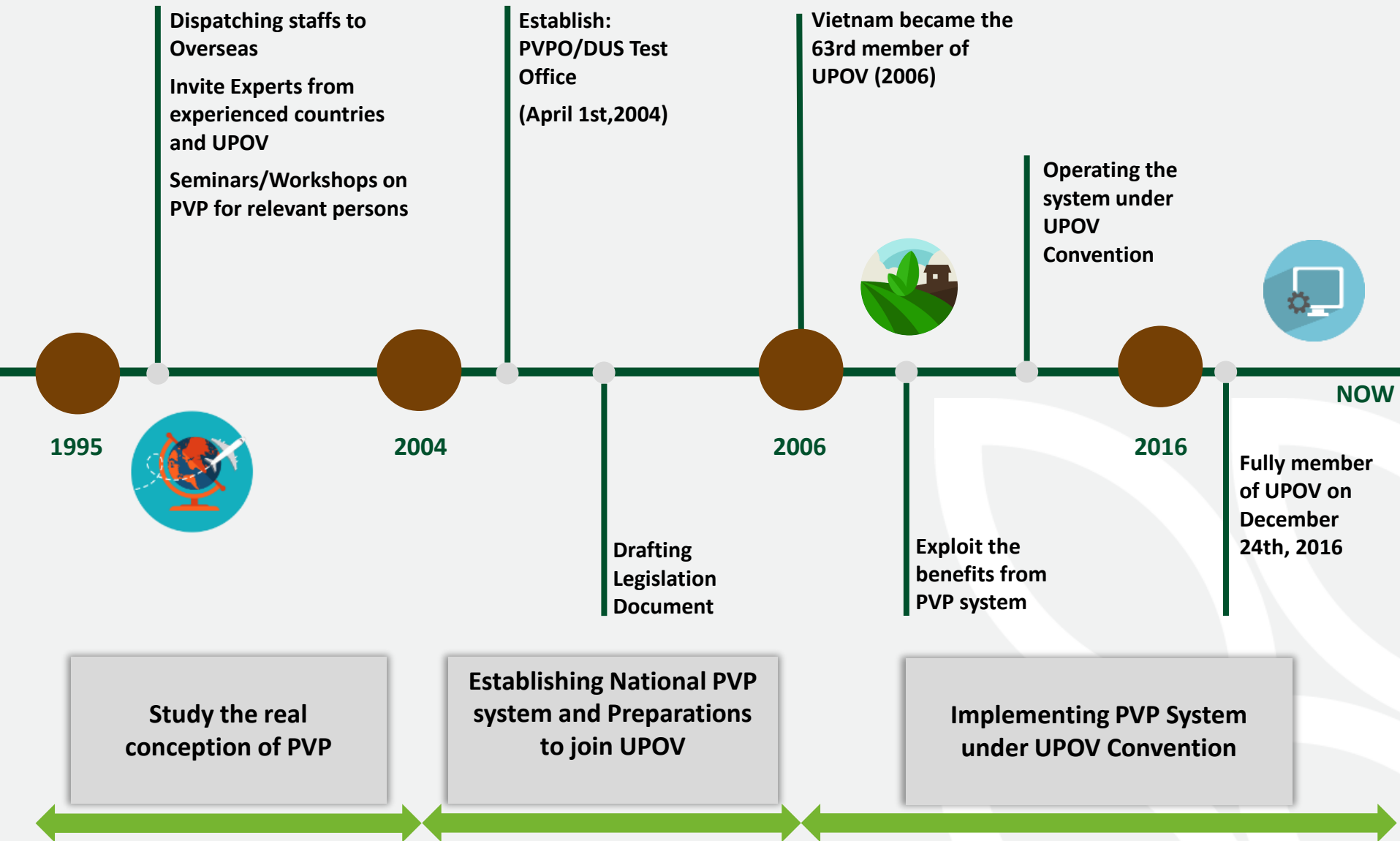
III

VINASEED GROUP

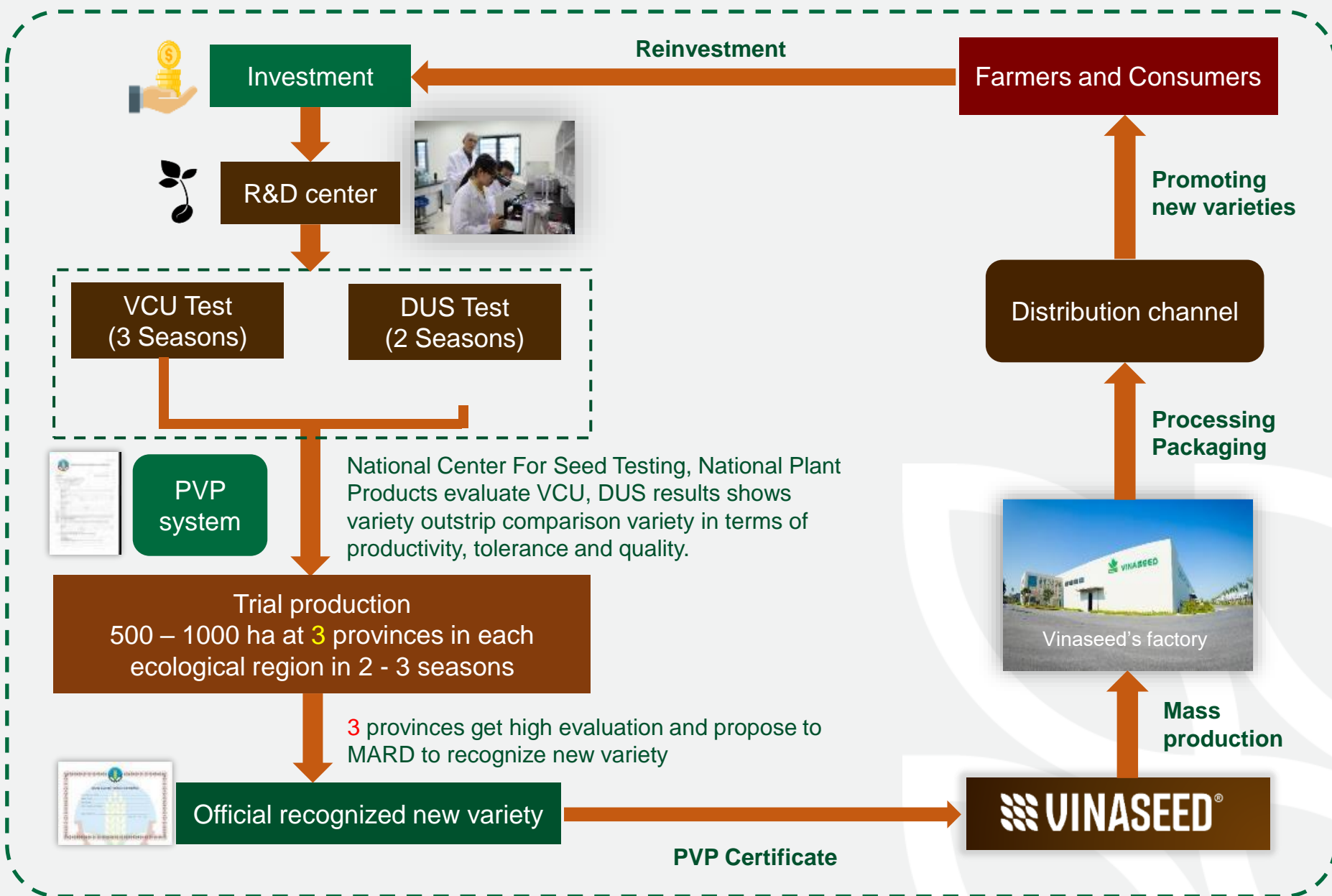
PLANT VARIETY PROTECTION



1. PVP SYSTEM IN VIETNAM



2. PVP IN VINASEED GROUP







Breeding areas



Research and Testing areas



PART IV.

IV

VINASEED GROUP

DEVELOPMENTS
IN THE
BREEDING OF
NEW VARIETIES

	PAST	NOW
1. Research orientation	<ul style="list-style-type: none"> - Partly based on the demand of market - Unspecific orientation 	<ul style="list-style-type: none"> - Entirely depend on the market's demand (<i>high productivity, resist to rice blast, leaf blight, drought, salinity,...</i>). -The trend of selecting and creating hybrid rice seed is decreasing because the conventional rice seed varieties have the same yield and quality, but the price is better.
2. Breeding technology	<ul style="list-style-type: none"> - Biparental crossing - Pedigree selection - Conventional backcrossing 	<p>Biotechnology</p> <ul style="list-style-type: none"> - MAS (marker-assisted selection) for targeted genes. - PYL- pyramiding lines: (combining more than two targeted genes on a single genotype)
3. Time for getting a new certification	<ul style="list-style-type: none"> - At least 5 years 	<ul style="list-style-type: none"> - At least 3 years

4. Criteria of new seed varieties recognition

PAST

- Trial site: less area (North, Central region, South)
- Lower level of standards
- Steps: a lot of steps (DUS, VCU, Trial production, official decision)
- Cost: less

NOW

- Trial site: More detail (7 ecological trial)
- Higher level of standards (at least moderate resistance to main insects and diseases, yield, ratio of milled rice, and quality are higher than that before).
- Steps: fewer steps (DUS, VCU, official decision)
- Cost: much

THANK YOU!



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