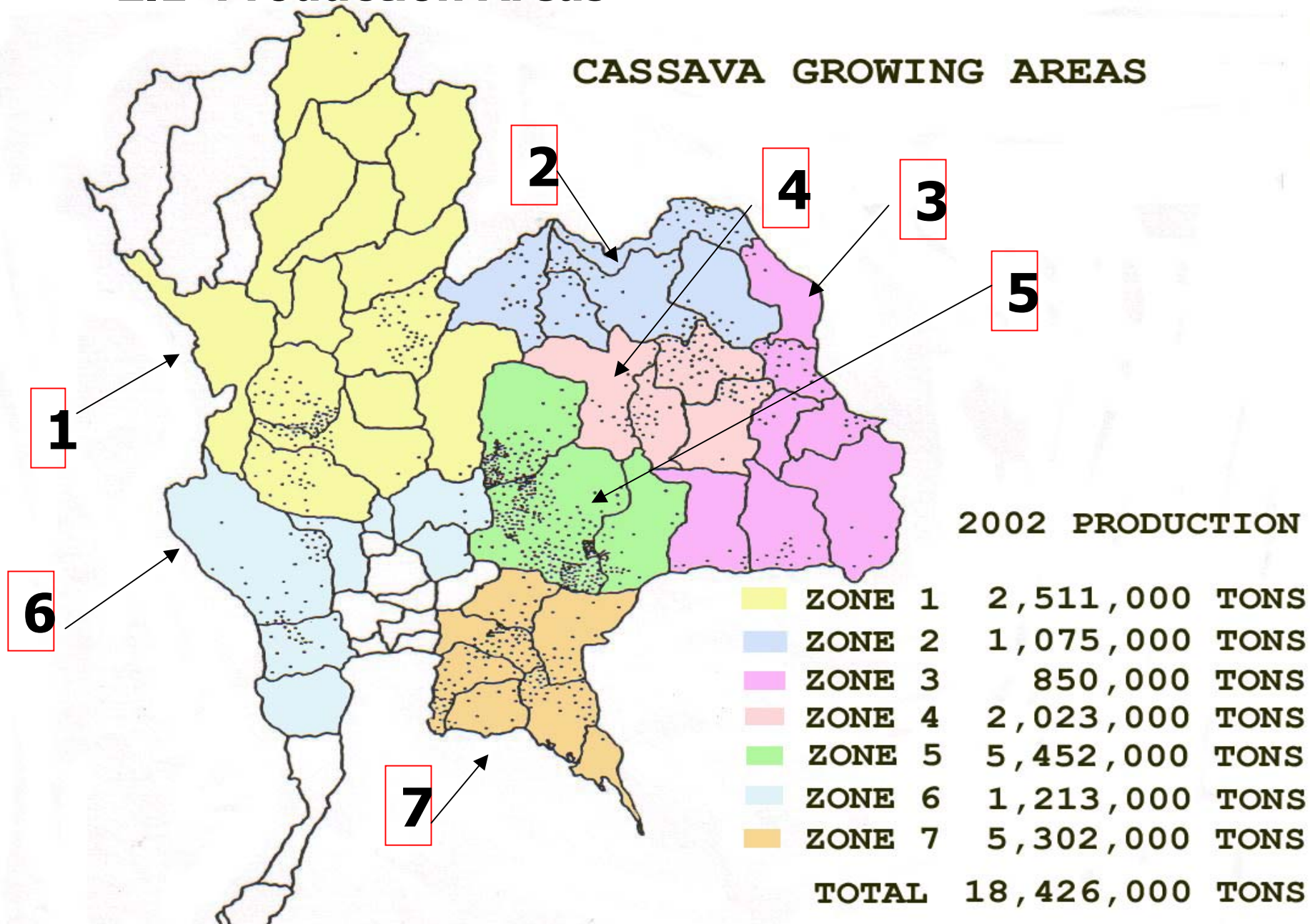


II. GENERAL INFORMATION

2.1 Production Areas



2.2 Production Utilization and Export

Roots production

- Year 2002

18,430,000 tons

Domestic Utilization

Total

= **5,600,000 tons**

- Chip/Pellet 500,000 tons
- Starch 1,000,000 tons

= 1,100,000 tons

= 4,500,000 tons

Export

= **13,350,000 tons**

- Chip/Pellet 3,000,000 tons
- Starch 1,500,000 tons

= 6,600,000 tons

= 6,750,000 tons

Total utilization & Export

- Chip/Pellet 3,500,000 tons
- Starch 2,500,000 tons

= 7,700,000 tons

= 11,250,000 tons

= **18,950,000 tons**

2.3 From “single product to single market” to broad base products and markets

III. RECENT STRUCTURAL AND FUNDAMENTAL CHANGES

3.1 MARKETING

- CAP Reform and declining export to EC.
- Growing starch production and export
- Emerging China market
- Shift from Europe to Asia
- Growing domestic utilization
 - 1,000,000 tons starch
 - 600,000 tons chip



3.2 GOVERNMENT POLICY

- From control and regulate to intervention
- From merry-go-round to supportive policy
- Remains farmer's income oriented policy

3.3 PRODUCTION

- Changes to high yield varieties completed
- Strong farmer interest to increase productivity : new varieties and cultivation techniques.
- Yield increases to 16.5 ton/ha,
 - ex farm cost down,
 - starch content up
- Starch factories effort higher roots price
- Structural shifts
 - from chip/pellet to starch and starch derivatives
 - from feed to industrial base inputs.
- >50% utilization of roots for starch production of 2.5 million tons
= 11 million tons roots.



3.4 PROCESSING

- Revival of chip production for China market
- Ten new tapioca starch factories : 2,700 tons/day = 4 million tons a year under construction in 2001
- Total 72 factories ; 16.8 million tons roots or 90 % of production.
- New usage, eight ethanol factories approved, 4 million tons roots inputs from 2004
- Continue expansion of starch derivative facilities : maltose, dextrine, dextose, glucose, dehydred, sobital modified starch etc. especially in ethanol & alcohol production

IV. OUTLOOK OF CASSAVA IN THAILAND

4.1 ROOTS PRODUCTION

- No new marginal land
- Alternate Land use among three crops and cassava sugar cane corn.
- Production costs down, high yield per ha. through new varieties and cultivation technique.
- Harvesting and transportation cost up.
- Short-term target yield at 3 ton/rai or 18.75 ton/ha.
- Medium Term (3-5) potential yield at 5 ton/rai or 31 ton/ha

4.2 GOVERNMENT POLICY

- Will maintain high price of roots for farmers.
(? bath/kg) through intervention scheme
- Support and promote export through
 - Increase market access. WTO, AFTA,
FREE TRADE AGREEMENT
 - Export promotion activities.
- No export control, minimum regulations.



4.3 PROCESSING

- Short term (2-3 years) :
 - Starch production will reach 3 million tons = 13 million tons roots in 2005
- Medium Term : (3 – 5)
 - Ethanol and alcohol production demand 4-8 million tons roots/year
 - Continue expansion of modified starch and starch derivatives productions.



4.4 MARKETING

- Short term outlook
 - Strong demand for chip from china @2,000,000 ton/year.
at better than FOB price to EC.
 - Starch export would continue to expand world wide
especially in Asia
- Medium term outlook
 - Great potential for starch export to China
 - Ethanol production for domestic use would reduce Thailand
cassava dependency on export >50 % utilized domestically.