

THE FOURTH NATIONAL REPORT

Appendix : Global Strategy for Plant Conservation

***Thailand Implementation during the
year 2005-2008***



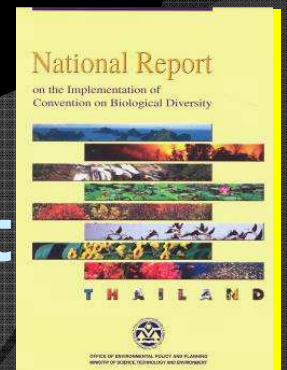
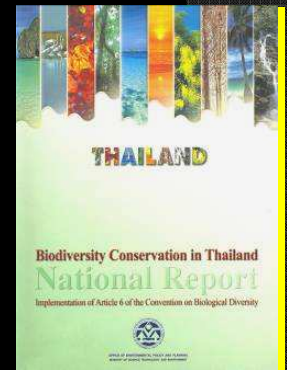
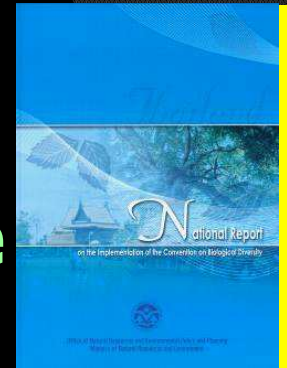
**Sirikul Bunpapong
Biological Diversity Division
The Office of Natural Resources and Environmental
Policy and Planning**

Progress towards Targets of GSPC

- how Thailand prepares 4

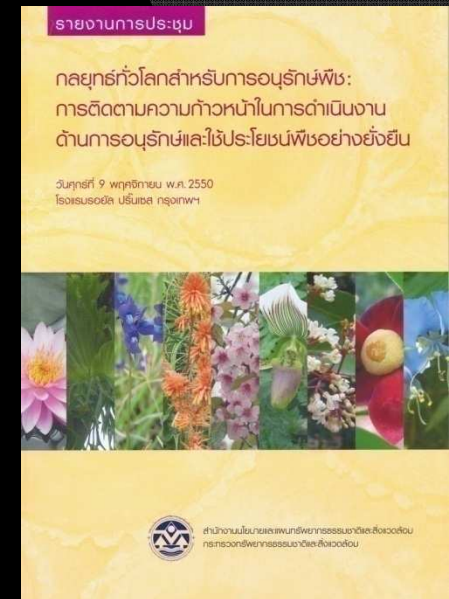
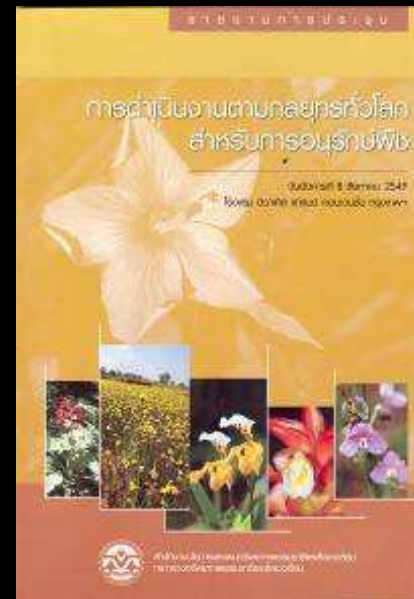
NR
Since 2005 , analyzing and assessing the implementation of GSPC in Thailand, through the following means and processes:

- 🌻 Questionnaire
- 🌻 Interviewing with relevant institutions/agencies
- 🌻 Compiling views and suggestions from the experts in each category
- 🌻 Brainstorming with experts and relevant stakeholders



APPENDIX III

As the Focal Point for GSPC, the NFP periodically monitors the progress of concerned agencies in implementing GSPC targets. Several brainstorm meetings had been organized. The outcomes had been recorded and disseminated through CHM and proceedings



🍁 synthesizing the
available information
and drafting report

🍁 peer reviewing the
report and
brainstorming to add
more updated data



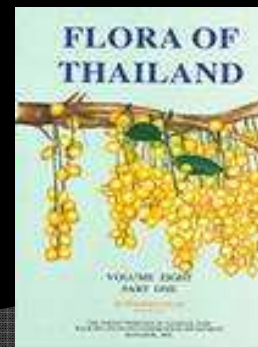
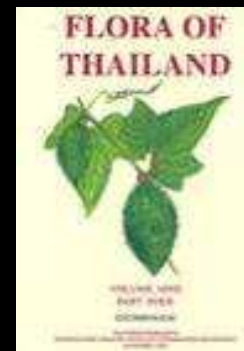
Understanding and documenting plant diversity



Target 1

**A widely accessible working list of known
plant species, as a step towards a
complete world flora**

Flora of Thailand Project:
implemented by Office of the
Forest Herbarium, under
Department of National Parks,
Wildlife and Plants
Conservation , has been
started since 1964
with its estimated 10,234
vascular plant
species (303 families and 1,363
genera)

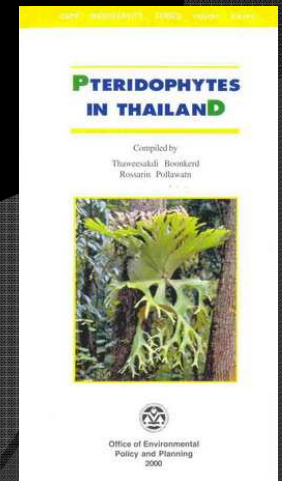
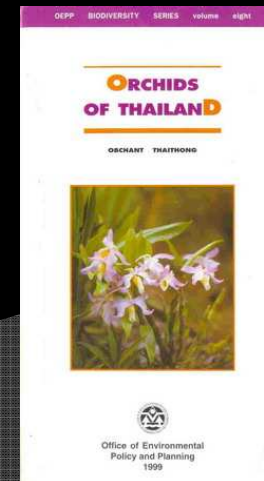
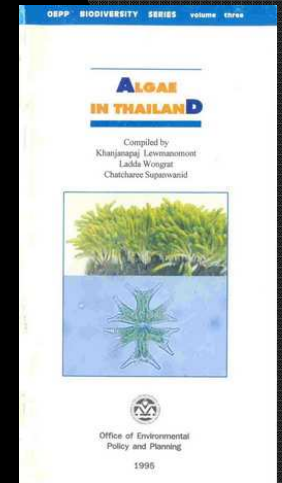
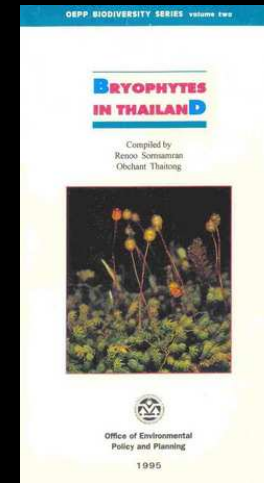


Progress to date

*In 2006, 4,193 species of vascular plant (approximately 35% of the entire vascular plant species) have been studied and published in *Flora of Thailand* for 24 parts of 150 families.*

*At present, 75% of the entire vascular plant species have been studied and published in “*Flora of Thailand*” for 28 parts of 168 families*

Non-vascular plants and the other plant species which have not been published in *Flora of Thailand*, have been studied and compiled in the “**ONEP Checklist Series**”, including *bryophytes*, *algae*, *pteridophytes*,





Target 2

A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels



In 2006, the ONEP had cooperated with Office of the Forest Herbarium in developing the list of endangered, rare and endemic plants species, and published the book
“Thailand Red Data : Plants”

based on IUCN criteria of

Thailand Red Data : Plants

Based on IUCN criteria of 1994

Endemic : 764 species (87 orchid species)

Rare : 880 species

Based on IUCN criteria of 2001

Vulnerable : 598 species

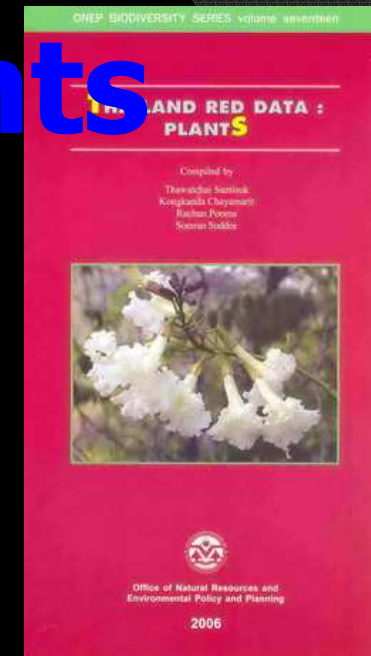
Endangered : 184 species

Critically Endangered : 20 species

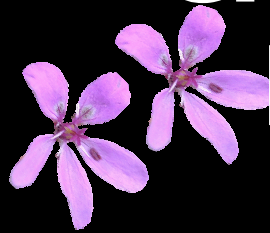
Near Threatened : 26 species

Least Concerned : 6 species

Extinct in the Wild : 2 species



In 2007, the ONEP had conducted the 2nd phase assessment of the list of endangered, rare and endemic plants species in Thailand, which includes 462 plant species in 22 families



Based on IUCN criteria of 1994

Rare : 241 species

Based on IUCN criteria of 2001

Endemic : 174 species (77 orchid species)

Endangered : 41 species

Near Threatened : 83 species





Target 5

**Protection of 50 per cent of the most
important areas for plant diversity
assured**

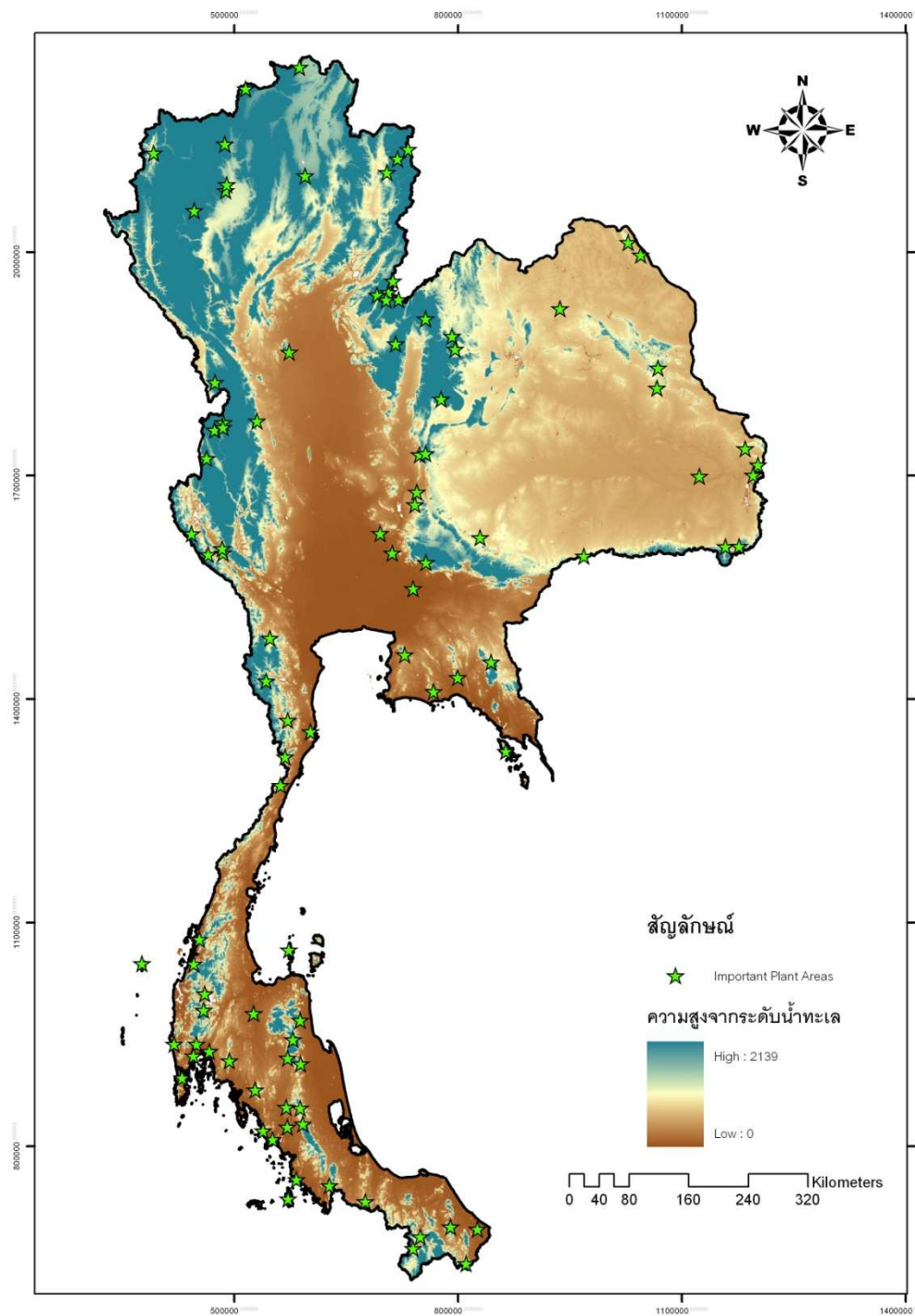
Important Plant Areas (IPAs)

“The natural or semi-natural site that holds exceptionally significant populations and high diversity of plant species of global or regional concern, and has rare, endemic and threatened plants, or plant communities with high botanical value”

**In 2008, the consideration of Important
Plant Areas in Thailand has been conducted
through two brainstorm meetings of
relevant experts and
institutions/organizations**

**Outcome of the meetings : List of Thailand's
IPAs
(98 sites)**





Thailand's Important Plant Areas (IPAs) classified by category of protection

<i>Cate gory</i>	Nati onal Park	Wildli fe Sanct uary	For est Par k	Non - Hun ting Area	Nati onal Res erve Fore st	Mana ged by Local Admi n. org.	No Protec tion
Num ber	55	17	2	4	9	2	9

**of
sites**

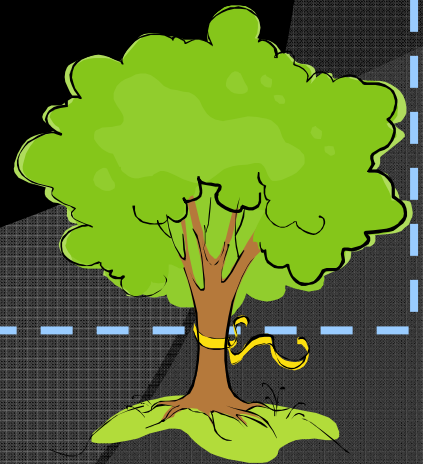
The consideration of 98 sites of Important Plant Areas in Thailand concludes that:

87 sites were legally protected as parts of reserved forests (88.76%)

9 sites were not legally protected (9.18%)

2 sites were managed by local administrative organizations (2.04%)


(This implies that target 5 can be achieved)






Target 10

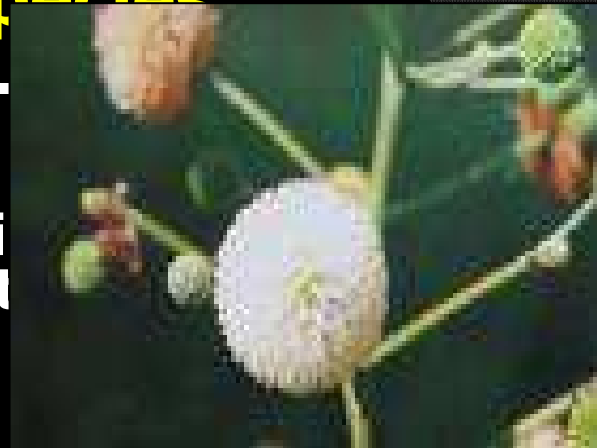
**Management plans in place for at least
100 major alien species that threaten
plants, plant communities and
associated habitats and ecosystems**

 **In 2006, the National Committee on the CBD has established the Working Group on Invasive Alien Species, which has considered legal gap concerning the introduction and invasion of alien species, compiled approximately 3,000 species of alien species and drafting the List of Invasive Alien Species in Thailand.**

 **The List of Invasive Alien Species in Thailand has 4 categories of alien species, and measures to prevent, control and eradicate them.**

Category 1: Invasive Alien Species

1. *Ageratina adenophora* (Spreng.) R.
2. *Bidens pilosa* L.
3. *Celosia argentea* L.
4. *Chromolaena odoratum* (L.) R.M.Ki
5. *Crassocephalum crepidioides* (Bent
6. *chhornia crassipes* (Mart.) Solms
7. *Euphorbia heterophylla* L.
8. *Galinsoga parviflora* Cav.
9. *Hydrilla verticillata* (L.f.) Royle
10. *Hydrocotyle umbellata* L.
11. *Hyptis suaveolens* (L.) Poit.
12. *Imperata cylindrica* (L.) P.Beauv.
13. *Lantana camara* L.
14. *Leucaena leucocephala* (Lam.) de W
15. *Mikania micrantha* (L.) Kunth
16. *Mimosa diplotricha* C. Wright ex Sua
17. *Mimosa pigra* L.
18. *Pennisetum pedicellatum* Trin.
19. *Pennisetum polystachion* (L.) Schu
20. *Pennisetum setosum* (Sw.) L.C. Ric
21. *Pistia stratiotes* L.
22. *Rottboellia cochinchinensis* (Lour.
23. *Salvinia molesta* D.S. Miteh.
24. *Tithonia diversifolia* (Hemsl.) A.Gray



Leucaena leucocephala



Galinsoga parviflora



Salvinia molesta

Category 2: Alien Species with Potential of Invasion

1. *Alternanthera bettzickiana* (Rehder) G.Nicholson
2. *Alternanthera philoxeroides* (Muhl.) Link.
3. *Amaranthus caudatus* L.
4. *Amaranthus spinosus* L.
5. *Arachis pintoii* Krapov. & W.C.Greg.
6. *Bidens alba* DC. var. *radiata* (Sch.Bip.) *Oxalis latifolia*
7. *Cabomba caroliniana* Gray
8. *Eryngium foetidum* L.
9. *Gomphrena globosa* L.
10. *Gomphrena serrata* L.
11. *Muntingia calabura* L.
12. *Myriophyllum aquaticum* (Vellozo) Pers.
13. *Oxalis latifolia* Kunth
14. *Panicum maximum* Jacq.
15. *Pennisetum purpureum* Schumacher
16. *Rivina humilis* L.
17. *Sphagneticola trilobata* (L.C. Rich.) Pruski *Arachis pintoii*
18. *Verbena officinalis* L. , European verbena



Category 3 : Alien Species which became invasive in other countries but not invasive in Thailand

1. *Agave americana* L.
2. *Agave sisalana* Perrine ex Engelm.
3. *Anubias* spp.
4. *Baldelia ranunculoides* Parl.
5. *Citharexylum spinosum* L.
6. *Damasonium alisma* Mill.
7. *Echinodorus* spp.
8. *Egeria densa* Planch.
9. *Gymnocoronis spilanthoides* DC. *Echinodorus* spp. Senegal Tea Plant
10. *Grevillea robusta* A. Cunningham ex R. Br. (Silk oak)
11. *Hyparrhenia rufa* (Nees) Stapf
12. *Lythrum salicaria* L.
13. *Macfadyena unguis-cati* (L.) A.H.C.
14. *Melinis minutiflora* P.Beauv.
15. *Myriophyllum spicatum* L.
16. *Psidium guajava* L.
17. *Pueraria montana* (Lour.) Merr.
18. *Schefflera actinophylla* (Endl.) H.A.T. *Ulex europaeus* Harms
19. *Spathodea campanulata* P.Beauv.
20. *Thalia geniculata* L.



Category 4: Invasive Alien Species which have not been introduced into Thailand

Acacia mearnsii

***Acacia mearnsii* De Wild.**

***Ageratina riparia* (Regel)
R.M.King & H.Rob.**

***Argemone ochroleuca* Sweet**

***Arrhenatherum elatius* (L.)
J.Presl & C.Presl**

Asphodelus fistulosus

***Azolla filiculoides* Lam.**

***Briza maxima* L.**

***Carduus nutans* L.**

***Cecropia schreberiana* Miq.**

***Cinchona pubescens* Vahl**

***Cyperus eragrostis* Lam.**

***Cytisus scoparius* (L.) Link**

***Datura stramonium* L.**

***Echinochloa polystachya* (Kunth)
A.S. Hitchc**

***Eragrostis curvula* (Schrad.) Nees**

***Erodium cicutarium* (L.) L'Hér. ex
Ait.**

***Euphorbia esula* L.**

***Holcus lanatus* L.**

***Marsilea macropoda* Engelm.**

***Marsilea quadrifolia* L.**

***Miconia calvescens* DC.**

***Morella faya* (Ait.) Wilbur**

***Oxalis pes-caprae* L.**

***Polygonum cuspidatum* Siebold &
Zucc.**

***Prosopis glandulosa* Torr.**

***Spartina anglica* C.E.Hubb.**

***Typha latifolia* L.**

***Undaria pinnatifida* (Harvey)
Suringar (Asia Kelp)**

Using plant diversity sustainably



Target 11

**No species of wild flora endangered
by international trade**

- ☀️ **Thailand, as a Party to CITES Convention, the Plant Protection Division under Department of Agriculture and Cooperative regulates and controls the import, export and transit of conserved plant species listed in CITES Appendix.**
- ☀️ **The adoption of CITES Permit system, through Plant Varieties Act (1975 and 1992) to regulate, control, monitor and issue record permit regarding conserved plants including Orchid Family, Cactus, Agarwood and *Nepenthes mirabilis***
- ☀️ **Control and monitor the smuggling of wild and conserved plant species at the border of Thai-Lao / Cambodia / Malaysia and Myanmar**

- 🌻 **Study and develop systems to regulate international trade of plants listed in CITES Appendix, in order to avoid negative impact on population of conserved plants in natural habitats**
- 🌻 **Study of species and population of rare and endangered plant species, especially *Cycad*, which can be traded without having negative impacts on their population in natural habitats**
- 🌻 **Organize meetings and coordinated with relevant committees, working groups and officials, to facilitate monitoring and regulation of international trade of plants species in CITES Appendix**
- 🌻 **Compile national statistics regarding the import and export of plants species listed in CITES Appendix**

Building capacity for the conservation of plant diversity



Target 15

The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy

- 🍀 **Graduated students from universities/academic institutions in related fields.**
- 🍀 **The Botanical Garden Organization has conducted training on local, botany to indigenous medicine men, teachers and interested persons every year .**
- 🍀 **CITES Convention has conducted training for related officials on the regulation of the import, export, and transit of conserved plants and plants listed in CITES Appendix, in accordance with the Plant Varieties Act and CITES Convention.**



Target 16

**Networks for plant conservation
activities established or strengthened
at national, regional and
international levels**

National Networks

-  **Algal and Plankton Society of Thailand**
-  **Network of Researchers on Algae in Peatland (Rajabhat Phuket Institute)**
-  **Local Biodiversity Data Network (Biodiversity Center and Mahasarakham University)**
-  **Networks of School Botanical Gardens (The Royal Project on Plant Genetic Conservation)**
-  **Botanical Clubs/Associations**
-  **Network of Law Enforcement to Prevent Illegally International Trade of Wild Flora (Thailand – WEN; CITES), Nakhon Phanom Province**

Obstacles and Needs

- 🌻 **Budget and supporting activities**
- 🌻 **Interagency coordination**
- 🌻 **Capacity building of related officials/personnel**
- 🌻 **Lack of adequate expertise and well-trained officials regarding plant conservation and plant taxonomy**

Conclusion

From the identification of policies, measures, projects, and activities of relevant organizations/institutions at all levels in Thailand, whose activities are related to the research and conservation of plants, using rationales of the Global Strategy for Plant Conservation. They have been

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