



The Project of Promotion on Planting Vetiver on Upper Watershed Areas with Community Participation

By

Pintip Thitirojanawat and Pradermchai Seangkoovong

**Watershed Conservation and Management Office,
Department of National Parks, Wildlife and Plant Conservation,
THAILAND**



Due to problems of destroying forests nowadays especially in upper watershed areas near communities, there are problems of academically wrong usage of lands. For example, there are agricultural areas used without concerning the principles of soil and water conservation. This results in the high rate of soil erosion, causing flood and landslide in some areas and water shortage in the dry seasons. **His Majesty the King Bhumibol Adulyadej**, has realized these problems and very concern of His citizen. He has suggested of utilizing Vetiver grass to conserve soil and water, preventing soil erosion in watershed areas and restore the ecology of soil and the forests. Vetiver grass can be used as wildfire defense lines and should be developed and planted enough for the demand. Understanding about the benefits of Vetiver grass in communities should also be built.



Causes

Upper watershed areas near communities, there are problems of academically wrong usage of lands





22 February 2003, His majesty gave His direction to M.R. Sam Jamjarash Rachchanee and his team at Klai Kangwon Palace

“To use Vetiver grass to develop and re-nutrition of soil and also propagation of Vetiver youth stock”

“To co-work between *Land Development Department* and government units to propagate and distribute Vetiver grass”

From His majesty opinion of Vetiver grass and even with welled proceed with government units to solving problems of soil erosion, deterioration and natural disaster, there are still some obstacles such as wrong usage of Vetiver



Even communities acknowledge about Vetiver but still some remote areas are needed the sprouts to be transported from near agencies, but it will occurred high cost of transportation



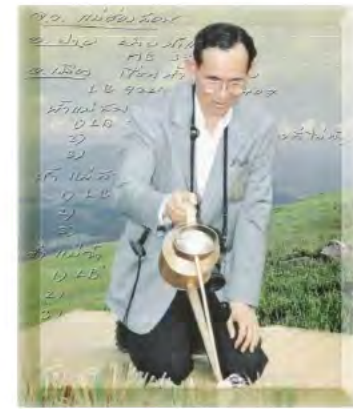
Objective



- Provide young Vetiver grass to support communities to plant in the areas with risk of soil erosion, especially in upper watershed areas, public used areas, and agricultural areas
- Promote and support villager and youth in schools to use Vetiver grass for soil and water conservation accordingly to His Majesty's suggestion and participate in providing young Vetiver grass
- Increase income to the communities from products made of Vetiver grass's leaves.



Proceeding Departments and Areas

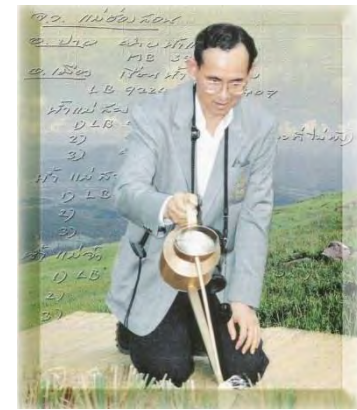


- ✿ The Department of National Parks, Wildlife and Plant Conservation
- ✿ 6 Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Centers and 2 of its branches

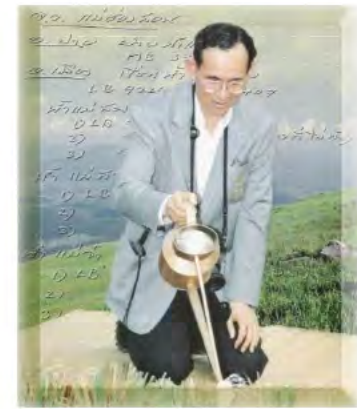


Proceeding Departments and Areas

- Watershed Conservation and Management Unit and the Watershed Management Unit (in watershed areas in risk of soil erosion)



Proceeding Departments and Areas



Area of Targets Communities



Procedure



- Set committee for the Project of Promotion on planting Vetiver on upper watershed areas with community participation and hold meeting among the committee to set guidelines and regulations including assessment and evaluative procedures.



Procedure

Assign







- 2 Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Center
- 2 Effective Watershed Conservation and Management units
- Watershed Management Unit in watershed areas

To be responsible for the areas and to be major units to produce and distribute young Vetiver to watershed areas





Thailand Map



-  **The center NO.1**, Moo.3, TambonPong-Yang, A. Mae rim, Chiang Mai.
-  **The center NO.2**, Moo.22, TambonMae Sin, A. SiSatchanalai, Sukhothai.
-  **The center NO.3**, Moo.4, TambonCharat, A. Buachet, Surin.
-  **The center NO.4**, Moo.5, TambonSahakonNikhom, A. Thong PhaPhum, Kanchanaburi.
-  **The center NO.5**, Moo.6, TambonThungMo, A. Sadao, Songkhla.
-  **The center NO.6**, TambonSiSukSamran, A. Ubolratana, KhonKaen.

Branch

-  **1. The center NO.1 (Khun Mae Kok branch)**, Tambon Mae Ai, A. Mae Ai, Chiang Mai.
-  **2. The center NO.1 (Nham Pua branch)**, Tambon Sathan, A. Pua, Nan.

Procedure

- Responded units produce young Vetiver grass and distribute to community participation areas and also within near targeted communities such as schools, temples, governmental office



Vetiver propagation with the Community participated



Vetiver propagation with the Youth participated





**Vetiver grass's breeds for distribution are selected to match the environment of targeted areas
(Same breed that has been in researched)**

Upper Watershed	Vetiver grass's breeds
Chiang Mai Province	Sri lunkha, Songkha 3
Sukhothai Province	Kamphaengphet 1,2 Sri Lunkha
Surin Province	Roi Et, Songkha 3
Kanchanaburi Province	Ratchaburi, Songkha 3
Songkha Province	Songkha 2, Songkha 3
Khon Kaen Province	Kamphaengphet1, Saraburi 2



Preparation of seedbed and propagate materials

Area of targeted Communities

Area of Responsible units



Procedure of Vetiver sprout : Cutting leaves and use root stimulate solution

Cut all root and old leaves



Put in the solution for 3-5



Procedure of Vetiver sprout : Moving Vetiver sprout into seedbed plastic



How the seedbed looks



Young Vetiver is propagated in small bags





Distribute Vetiver to targeted communities for planting



Procedure

- 🌿 Promote and support information about Vetiver grass for communities and youth





Giving Vetiver's knowledge to communities



Sharing Vetiver's knowledge to the youth



Promoting Vetiver knowledge by co-activity with schools



Procedure

- Produce educational and promotional materials to use as documentary and training and distribute them to local communities.



Produce informative materials and promote to communities



"การปลูกหญ้าแฝกในพื้นที่ภูเขา
เพื่อปลูกหญ้าแฝกตามแนวขวาง
ของหุบเขาและในร่องน้ำ
ของภูเขาช่วยป้องกันการชะล้าง
ของหน้าดินและช่วยเก็บความชื้น
ในดินไว้ด้วย"

ในความเป็นจริงแล้วโครงการนี้ได้
ที่มาจากสมเด็จพระเจ้าอยู่หัว
โดยพระราชทานพระราชดำริให้
นายสุชาติ สวัสดิ์ศรี และ น.ส. นงนิจ
เป็นปี ๒๕ และ ๒๖ มิถุนายน ๒๕๓๔
และ สมเด็จพระนางเจ้าฯ พระบรมราชินีนาถ
ทรงพระกรุณาโปรดเกล้าฯ ให้
ตั้งกองบัญชาการขึ้นในปี ๒๕๓๕



Produce informative materials and promote to communities



Procedure

- ✿ Ensure knowledge of Vetiver grass into course of developing and promoting the utilization of Vetiver to community participation
- ✿ By training in both in theoretically and practical. And also teaching of making products from Vetiver for increase communities' income
- ✿ Promote and educate local communities/units by experts from the *Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Center* not just inside but also sent out to local areas

Training and transferring technology in using Vetiver

(Educating student both in theoretically and practically)



Training and transferring technology in using Vetiver

(Educating student both in theoretically and practically)



Vetiver handcraft training course for watershed Communities



PPT Public Company Limited sponsors and sent some teacher to teach on how to make Vetiver handcrafts

Teaching class of Vetiver handcraft



Vetiver handcraft products sale at local area

Huaymafoung community, Maeaye (Chiangmai Province)



Vetiver's leaf handcraft product

Srisooksamran Aubonrut (Konkaen Provice)



Procedure

- ✿ Encourage communities and youth to join various demonstrations of Vetiver grass utilization by *The Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Center* and to sample of seedbed to be model in their own areas



แผนที่ประเทศไทย

Demonstration and promotion the usage of Vetiver grass



Demonstration and Promotion on the usage of Vetiver grass



Demonstration vetiver root system



Collecting vetiver grass species



Demonstration Vetiver root system



25 1 2006



15 7 2005

Demonstration of using Vetiver grass to protect erosion on road shoulder



Demonstration of planting Vetiver grass at steep areas



Demonstration of using Vetiver grass as check dams



Procedure

- Build local awareness and motivation by having activities related to Vetiver grass on important days such as the His and Her Majesties' birthdays.
- Combine classes and activities about Vetiver grass into school's curriculum.



The activity of the Vetiver grass with the community on special occasions



Planting Vetiver with Community on His/Her Majesties Birthdays

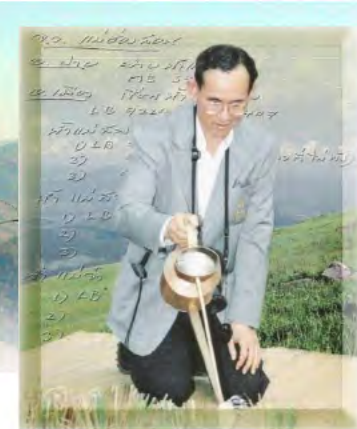
Doi Thamm templeasatit, Chiang Mai Provinces



Procedure

- ✿ Build Vetiver grass network in private organizations, community leaders, teachers, and students by have them participate in the programs
- ✿ Searching for the local leaders to promote Vetiver's benefit in their areas
- ✿ Make local representatives to encouraging and persuading neighbor communities of Vetiver grass





Performance



Trainings of Vetiver Grass Utilization and Production since 2008 - 2014



Year	Vetiver Grass Training (Group/Year)	Vetiver Gress Training (Person)	Budget (US)
2008	10	500	18,460
2009	10	500	18,460
2010	12	600	21,150
2011	12	600	21,150
2012	12	600	21,150
2013	12	600	21,150
2014	14	700	25,850
7 Year in Total	82	4,100	147,370

1 US = 32.50 Bath

The Project of Promotion on Planting Vetiver on Upper Watershed Areas with Community Participation

Department of National Parks, Wildlife and Plant Conservation has been supported by the *Office of the Royal Development Projects Board (RDPB)* since 2008 – 2014 for total of 31,500,000 Vetiver sprouts

Produced Young Vetiver Grass for Supported Communities

Year 2008		5,000,000	Unit
Year 2009		3,000,000	Unit
Year 2010		2,500,000	Unit
Year 2011		4,000,000	Unit
Year 2012		5,000,000	Unit
Year 2013		8,000,000	Unit
Year 2014		4,000,000	Unit



Young Vetiver grass produced to promote the communities from 2008 to 2014

Fiscal year	Produced young Vetiver Grass (Unit)	Responsible Unit (Unit)	Supported Communities (Communities/Schools /Temple)	Budget (US)
2008	5,000,000	5	100 C / 5 S / 5 T	253,850
2009	3,000,000	6	50 C / 6 S / 6 T	152,310
2010	2,500,000	12	50 C / 6 S / 5 T	126,920
2011	4,000,000	20	172 C / 7 S / 1 T	203,080
2012	5,000,000	15	155 C / 9 S / 2 T	253,850
2013	8,000,000	38	128 C / 8 S / 5 T	406,150
2014	4,000,000	24	85 C / 9 S / 5 T	203,080
7 Years in Total	31,500,000	120	740 C / 50 S / 28 T	1,599,230

1 US = 32.50 Bath

Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Centers, ChaingMai

Village Area No.4, Pongyang, Maerim, ChaingMai



Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Centers, Sukhothai

Village Area No.4, Maesin, Srisatchanalai, Sukhothai



Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Centers, Kanchanaburi

Village Area, Linthing, Thongphapoom, Kanchanaburi



Development and Promotion of the Utilization of Vetiver of Forestry Demonstration Centers, Songkhla

Village Area, Tungmhor, Sadao, Songkhla



Royal Project Lungmaetho and Maesaraing, ChaingMai

Village Area No.4, Babae, Maesaraing, ChaingMai



Royal Project Lungmaetho and Maesaraing, ChaingMai

Village Area No.7, Bantub, Maejam, ChaingMai



Village Area No.9, Bosari, Hod, ChaingMai



Watershed Management Unit : Huaypakood, Phetchabun

Village Area, Sila, Lhomkao, Phetchabun



Watershed Management Unit : Namkhoonkok, Chaingmai

Village Area No.3, Maeeye, Chaingmai



Watershed Management Unit : Maeyhod, ChaingMai

Village Area No.9, Maesuk, ChaingMai



Monitor and Evaluation by Committee of DNP



Monitor and Evaluation by Committee of Evaluation of the Development and Promotion Of the Utilization of Vetiver grass




Monitor and Evaluation by Committee of Evaluation of the Development and Promotion Of the Utilization of Vetiver grass




ณ ศูนย์สาธิตฯ ที่ 5 หนองนา

18 กรกฎาคม 2554

Problems and Obstacles

 There are more and more communities demand for young Vetiver to plant in their areas. However, young Vetiver still not can't match to the demand



 Distributing to the high ground area still facing with difficulties, some communities don't have vehicles to transport, so the center have to assist them

 Communities have limitation in Economical and their incomes



Suggestions



Support potential local units to produce more Vetiver grass for more distribution especially the units located in areas at risk of soil erosion and rural areas. The grass is not enough to fulfill all demands due to the governmental policies. Encouraging more people to conserve natural resources and giving people more knowledge which raise the demand of Vetiver grass gradually.

Suggestions



Encourage communities to prepare planting beds for young Vetiver grass in local areas by themselves to help saving cost and reduce the distance of transport because the production of young Vetiver grass in some areas require relatively high cost of transportation, particularly in the rural areas.

Suggestions

Find a mechanism to encourage community to use Vetiver grass for preventing soil erosion. Finding ways to plant Vetiver grass and increase revenue from making products from Vetiver grass's leaves which are immediate income rather than the benefits of soil and water conservation because communities located on the upper watershed areas face with economical limitation, farmers are poor so they need to spend time growing crops making money quickly rather than waiting to see the results of Vetiver utilization in soil and water conservation



Suggestions



Create motivation in planting and maintaining Vetiver grass continuously by arranging Vetiver planting contest in the promoted areas. Awards should be given to the winner based on reasonable result, It also be an opportunity to encourage and support communities.





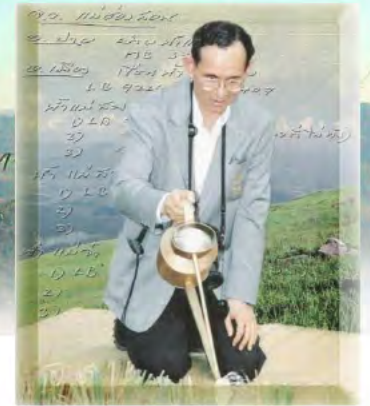
Mr Pradermchai Saengkoovong
Director Of Watershed Community Promotion
and Development Division
T. 6681 833 8660
E-mail PS-chinasri@hotmail.com



Mrs. Pintip Thitirojanawat
Chief of Development and
Vetiver Promotion section
E-mail Pinthi@yahoo.com



Watershed Conservation and Management Office
Department of National Parks, wildlife and Plant Conservation
T. 662 561 0777 ext 1871 www.dnp.go.th/watershed



Thank you

