
5th-8th May 2015

Danang Technology University, Danang Vietnam
Vetiver for mine Rehabilitation:
Padaeng Zinc Mine,
Mae Sot District, Tak Province
Topic

- General Information of Zinc Mine Project
- Environmental Rehabilitation
- Vetiver for mine rehabilitation
I. General Information of Zine Mine Project
Padaeng Mine

- Zinc Mine in Thailand
- Zinc oxide ore
- Started 1984
- Ore Production 150,000 MT/year
  - High grade ore 85,000 ton/year @20 %Zn
  - Concentrate ore 65,000 ton/year @25 %Zn
Map of PDI Mine & Smelter

Padaeng Mine

Smelter

95 km
Open Pit Mining
Overburden haulage by Trucks

To Overburden collecting area
Overburden collecting area
Ore haulage by heavy equipment to crushing plant
Crushing Plant

High Grade Ore
20 %Zn

Low Grade Ore
6-8 %Zn
Low Grade Ore Feed to Flotation Plant

Concentrate @ 25 %Zn

Flotation Plant

Zinc concentrate Cake
Ore Transportation to Tak Smelter
II. Environmental Rehabilitation
Concept for Environmental Rehabilitation of Padaeng Mine

- Rehabilitation in-between Mining Activities
- Set Rehabilitation Fund
- Non-contaminated Topsoil Procurement
- Vetiver Grass Planting
- Local Tree Planting
Environmental Rehabilitation Plan

Actual (Year 2000-2014) 561 Rais
Plan (2015-2018) 334 Rai
Rehabilitation Fund

Structure of the Fund

- Total: MB 97
- Top soil purchasing: MB 50
- Plantation: MB 22
- 5 years monitoring after mining: MB 25

If any fund remains after rehabilitation, it will be donated to the community
Topsoil Covering
Topsoil Covering
Topsoil procurement
Crop planting in-between vetiver grass
Local trees planting
Local trees plantation
Rehabilitated area protection
Animated Photo of Overburden Collecting Area after Mining

Next 10 years
Animated Photo of Flotation Plant Area after Mining

Next 10 years
III. Vetiver for mine Rehabilitation
Vetiver grass species collection
Vetiver grass planting by villagers around the mine
Vetiver grass planting by villagers around the mine
Present Padaeng mine, one of the biggest place of vetiver grass plantation in Thailand
Slope stable by vetiver grass

Erosion if without vetiver grass
Sediment reduction during raining by vetiver grass
Princess Chakri Sirinthorn visit, 2009.
Princess Chakri Sirinthorn last visit, 2013.
Vetiver for mine Rehabilitation:
Padaeng Zinc Mine, Mae Sot District, Tak Province
Zinc... essential for Life

www.padaeng.com