

# Essential $Zn^{2+}$ for Life



**Padaeng Industry Public Company Limited**



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# Vision

**Padaeng aims to be the leading provider of high quality zinc materials in Southeast Asia.**

**Driven by innovation and sustainable growth,  
we maximize added value for our [clients](#),  
with respect to our [people](#) and the environment.  
We support the [communities](#) in which we operate  
and give the best possible return to our [shareholders](#).**

# Background

Padaeng Industry was established on April 10, 1981 with a registered capital of Baht 20 million invested by Thai public (Ministry of Finance) and private investors and a private company from Belgium (Vieille Montagne). The Company engaged in mining and smelting business with the objective to produce zinc metal and zinc alloys to serve its customers. The Company's mine is located in the Mae Sod district and its smelter in the Muang district of the Tak province, the roaster plant in the Rayong province and the head office in Bangkok. The Company is also engaged in zinc ore exploration programs both in Thailand and in neighbouring countries.

The Company has been listed on the Stock Exchange of Thailand since July 21, 1987 and converted into a public company limited on February 4, 1994. In 1996, the Company increased its registered capital to Baht 2,260 million. It was fully paid in 2000.







## A new road to recovery and beyond

The year 2012 proved to be an extremely difficult year for PDI.

The operating conditions changed dramatically, characterised by weak global zinc price caused by significant oversupply, demand slowdown, soaring production costs and poor profit margin.

PDI's long-established business model as "the low-cost producer of high quality zinc," which was successfully adopted in the past three decades, was no longer applicable in the market environment that is bound to get tougher and tougher.

The Company needed change, not only to overcome numerous hurdles seen in 2012 but to ensure a sustainable long-term growth.

A revisit to PDI's corporate vision and strategy, made after Francis Vanbellen took office as Managing Director in May 2012, pointed the need to put in place a new roadmap and embracing a transformation that is crucial and doable, to inject fresh dynamisms to the Company.

That process began with a refreshed corporate vision along the line of "Padaeng aims to be the leading provider of high quality zinc materials in Southeast Asia."

The rejuvenated PDI will be driven by innovation and sustainable growth; maximising added value for our clients; respecting people and the environment; supporting the communities in which PDI operates and giving the best possible return to shareholders.

A four-front strategic plan was formulated to turn that mission statement into reality by encompassing technological innovation, supply consolidation, downstream development and operational excellence.

Following an extensive brainstorming, seven VIP (very important project) schemes were brought up in the third quarter of 2012 as the tools to translate the strategic plan into real action.

Early in 2013, four more VIP projects were incorporated in the original list to cover a broader spectrum of action plans needed to fully tap benefits of the strategic plan.

In a nutshell, these VIP projects seek to securing more raw materials from non traditional sources; boosting recovery of valuable metallic by-products; expanding production and sales of value-added alloys and controlling operating expenses.



Each project is undertaken by a specific task force owned by a senior executive with a clear objective and set timeframe to accomplish the goal.

The Company is optimistic that some of these undertakings will yield tangible results as early July 2013 and those with long lead time witnessing fruition within 2014.

In the raw material procurement category, the Company is pursuing:

- Recovering ores from the new Mining Lease Application (MLA) No.8 tract, lying northeast of PDI's existing Mae Sod mine and is expected to provide an additional one-year supply
- Securing zinc ore and concentrate through partnership, joint ventures, off-take agreement and mine stake acquisitions
- Sourcing crude oxide supply through off-take deals with producers in Thailand

Under the operational improvement, three scopes of work have been defined:

- Improving quality and increasing feeding volumes of washed oxide, a cheaper raw material, to PDI's Tak smelter

- Recovering other metals like lead and silver which are contained in the final residue, as a by-product for sales

- Investing in an environmental friendly new boiler at Tak smelter that is run by cheaper fuel-coal

In terms of revenue enhancement, PDI will drive sales of zinc alloy products in domestic and overseas markets.

For operational excellence, it encompasses:

- Putting in place a strategic vehicle for continuous improvement
- Stringent controlling all expenses
- Supporting corporate social responsibility (CSR) policy
- Aligning human resources policy with PDI's new vision

## 004 Message from the Board of Directors



The year 2012 was the most turbulent period in PDI's 3-decade history, buffeted by storms of adversities triggered by uncontrollable elements including tough global economic condition, weak global zinc price and higher operating costs.

It was a year where the inevitable impacts from those unfavourable factors weighed heavily on the Company's balance sheet.

The world's zinc demand dropped 2.8% in 2012 to 12.40 million metric tons (mt) due to lower demand in the crisis-hit Eurozone and slowing Chinese economy.

High global production volumes and record excessive stocks worldwide have created an oversupply situation that depressed zinc prices.

Global zinc price weakened, falling by an annual average of USD 1,948 per mt, down 11% from the previous year's average.

PDI faced increased costs, particularly dearer electricity charges which were at the top expense list, while the costs of ore imports and chemicals used for the production have also inflated.

Lower delivery of low-cost zinc silicate from PDI's Mae Sod mine, slippage of ore treatment charges the PDI's Tak smelter was getting from miners, coupled with the appreciation of the Thai Baht, also undermined the Company's 2012 financial position.

The impacts outweighed PDI's attempts to mitigate problems thus arising.

The hostile operating environment prompted the management to take a hard look in our corporate vision and strategic roadmap.

An extensive review, assisted by third-party business strategy experts, concluded that PDI need to transform in order to revive a healthy financial statement, regaining its robust industry position and ensuring a sustainable long-term growth.

To usher in a new era, we have adopted a new corporate vision to replace the age-old motto that no longer fit into the current operating environment and PDI's profile especially in the backdrop of expected ore reserves depletion at the Mae Sod mine over the next five years.

PDI can no longer be "a low-cost producer of high quality zinc," but "aims to be the leading provider of high quality zinc materials in Southeast Asia."

The revitalised PDI will be driven by innovation and sustainable growth; maximising added value for our clients; respecting our people and the environment; supporting the communities in which we operate and creating the highest added value to our shareholders.

Being instrumental to realising the new vision is a strategy which spotlights on four elements - technological innovation, supply consolidation, downstream development and operational excellence.

We have moved strenuously to implement these four strategic pillars by means of securing more raw materials from non traditional sources, increasing recovery of metallic by-products, expanding production and sales of value-added alloys and controlling operating expenditures.

A set of action plans related to this new roadmap have begun in earnest towards the end of 2012.

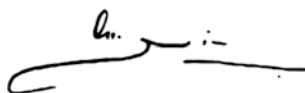
We are confident that these action plans, which are actively pursued by PDI executives and staff, will see their fruition as soon as in 2013 by turning around PDI's balance sheet.

The year 2013 will be a turning point for PDI as the Company emerges lean and mean, with sharper focus and dynamism to weather the challenges and cash in on opportunities arising.

We are counting on PDI talented and experienced staff for their support and dedication in turning this transformation into a success story, as well as sustaining PDI's leadership as Southeast Asian's only zinc smelter.

PDI has long demonstrated an industry-leading commitment to sustainability, ensuring that our operations are environmentally friendly and co-existing with communities in surrounding areas, while helping to raise their living standards.

PDI Mae Sod mine's eco-friendly practice and social responsibility was once again acknowledged in 2012 with the reception of two accolades from the Department of Primary Industries and Mines (DPIM)-the 2012 Green Mining Continuous Award and 2012 CSR-DPIM Continuous Award.



**Arsa Sarasin**

Chairman of the Board



**Francis Vanbellen**

Managing Director



## 006 Highlights of the Year 2012



- In line with the changing markets and competitive environment, PDI assessed and reviewed its vision and elaborated on an enabling dynamic strategic action plan. With the formal introduction of corporate social responsibility (CSR) PDI emphasizes its aim for sustainable development and results.

- In the course of 2012 PDI embarked on a transformation of its organization, introducing a Process & Technology Innovation (PTI) department, to enhance creativity and innovation. Its main objectives are (1) to increase efficiency and effectiveness of research & development activities in alignment with PDI's strategic goals, (2) to establish a knowledge management process and (3) to further deploy its technical support to its customers. Additionally - to enable its strategic action plan - PDI introduced functions in business development and business excellence.

- To foster collaboration and strengthen partnerships with galvanizing operators, PDI demonstrated its leading role by founding the Thai Galvanizing Association (TGA) in November 2012. Its key objectives are (1) to create unified standards for the industry, (2) to promote exchange of information and technical knowhow and (3) to share best practices.

- In joint collaboration with PDI's customers new zinc alloys were introduced into the market as a substitute for the commonly used special high grade zinc in high-quality galvanizing applications.

- In 2012 PDI recorded not a single accident with lost working time. All operating sites were once again rewarded for their excellence in environmental management.

- Mae Sod mine received two accolades from the Department of Primary Industries and Mines (DPIM) - the 2012 Green Mining Continuous Award and 2012 CSR-DPIM Continuous Award.
- The Rayong roaster won the Excellence Environmental Governance Award for the fifth consecutive year, issued by the Map Ta Phut Industrial Estate, Industrial Estate Authority of Thailand.
- Tak smelter's environmental management system was certified in compliance with ISO 14001.



# Key Figures and Ratios

Annual  
Report 2012  
**007**



## Consolidated

End of year		2012	2011 (Restated)	2010 (Restated)
Total revenues	(million Baht)	7,684	7,427	8,161
Gross profit	(million Baht)	-15	369	994
Net profit (loss)	(million Baht)	-590	4	413
Net profit (loss) per share	(Baht)	-2.53	0.02	1.83
Net profit (loss) per total revenue	%	-7.68	0.06	5.06
Total asset	(million Baht)	6,114	7,148	6,982
Total liabilities	(million Baht)	2,244	2,569	2,115
Total shareholders' equity	(million Baht)	3,870	4,579	4,866
Return on assets	%	-8.90	0.06	5.95
Return on equity	%	-13.97	0.09	8.85
Return on capital employed	%	-14.49	0.58	12.33
Debt to equity ratio	(Times)	0.58	0.56	0.43
Book value per share	(Baht)	17.12	20.26	21.53
Dividend per share	(Baht)	0.00	0.50	1.29



Annual  
Report 2012

## 008 Sustainable Development





## Safety First

### PDI's passion for safety & health thrives

PDI firmly believes that a healthy workforce, free from fatality, injury and illness is fundamental to successful operations and sustainability.

Its commitment to provide a safe, sound and healthy working environment for employees, workers, subcontractors and others can be witnessed across its three operation sites - the Mae Sod mine, Tak smelter and Rayong roaster.

PDI strives to create an instinct for safety among its workforce, making them to act and become more accountable in terms of precaution through training and audits.

That commitment has been mirrored by the continued improvement in safety & health performance, thanks to relentless effort to make it so with the conviction that all injuries and work-related illness can and must be prevented.

At the Mae Sod mine, there was no lost-time accident in 2012 with 723,792 man-hours accrued.

Similarly, there was no work stoppage resulting from injuries of workers at the Tak smelter in the year.

The records were more impressive at the Rayong facility where there has been no accident for four consecutive years, clocking 1.26 million man-hours of accident-free.

PDI's pro-active approach to safety has been recognised by honours extended by different government agencies over the years.

In 2012, the Mine was singled out as a "prototype organization for safety & occupational health" by the Tak Provincial Public Health Office and the Occupational Health Clinic Network Committee.

For the fifth consecutive year, the Smelter won the outstanding award for safety measures, occupational health and working environment from the Ministry of Labour in 2012.



All the PDI sites are deploying concrete plans to deepen a safety culture among all members of the Company through a series of enhanced campaigns and activities.

For instance, at Mae Sod mine, which has already received TIS 18001 and OHSAS 18001 occupational health and safety certifications, a six-phase year-round activity will be rolled out in 2013 to transpire a safety mindset among its 250 employees.

The behaviour-based safety programme that was successfully introduced at the Tak smelter will be reinforced in 2013 by means of persuasive approach rather than being penalty-oriented.

All in all, "zero harm to people" is PDI's next milestone.

## Environmental Protection

### Dedicated to eco-friendly best practices

PDI's pursuit of eco-friendly policy has continued to evolve with further headway was made in 2012 in various dimensions to underscore the Company's industry leadership in green practice.

All of PDI's three operating sites - Mae Sod mine, Tak smelter and Rayong roaster - were once again able to proudly display their fine records for environmental protection.

Audits showed that environmental quality - chiefly in terms of air, water, noise and vibration - excelled official limits in all parameters.

That serves to reflect the Company's unwavering adherence to global best practice in preventing and mitigating environmental impacts arising from operations.

### These are not empty words

Mae Sod mine's eco-friendly practice and social responsibility was again recognized in the year with the reception of two accolades from the Department of Primary Industries and Mines (DPIM) - the 2012 Green Mining Continuous Award and the 2012 CSR-DPIM Continuous Award.

In 2012, the Rayong facility won the Excellence Environmental Governance Award for the fifth consecutive year from Map Ta Phut Industrial Estate, Industrial Estate Authority of Thailand.



Tak smelter's environmental management system has been certified to the ISO 14001 compliance.

From the environmental perspective, the co-existence among PDI sites and surrounding communities has remained sound, right after 30 years of co-habitation.

That explains the absence of complaints lodged by communities against PDI's operating locations in 2012.



**Chaiwat Phadermrod**  
Section-Chief Safety, Occupational  
Health & Environment

#### Eco-friendly:

The majority of visitors to Padaeng's Mae Sod mine left the site impressed with eco-friendly practice vigorously pursued, which in fact changed their perception that mining does not necessary mean forever destruction to environment at all, on the contrary.

"From what they witnessed, visitors told us that Padaeng has indeed taken good care of the environment," says Chaiwat Phadermrod, Section-Chief Safety, Occupational Health & Environment at Mae Sod mine.

"I've never got bored of answering visitors' questions about environment protection and mitigation measures we have applied.

"It's not because I'm duty-bound to do so, but I am proud to be able to have contributed to PDI's exemplary story," notes Chaiwat, who has worked for Padaeng since 2000.





## Greener Mae Sod

The year 2012 saw further headway achieved in the continued rehabilitation at PDI's Mae Sod, turning once rocky landscape into lush greenery and becoming home for wildlife.

An additional 12.6 hectares of mined area was successfully rehabilitated with Vetiver grass, perennial and fast-growing trees native to the neighbourhood like Lamphu-pa (*Duabanga grandiflora*).

Since 2003 when Vetiver grass was first introduced as an ideal flora for Mae Sod rehabilitation program for its capability of soil erosion prevention and soil quality improvement, a total of 16.5 million of them been planted at the old mining sites.

That has made PDI's Mae Sod site the country's single largest concentration of Vetiver plantation.

In terms of perennial planting, a total of 78,300 trees have been planted at the sites so far.

Cumulative greening acreages at Mae Sod to the end of 2012 reached 72.3 hectares and growing, underpinning PDI's commitment to ISO 14001, an international standard that specifies a process for controlling and improving a company's environmental performance.

Until the end of 2012, Baht 48.4 million was drawn from the Fund for Development & Rehabilitation of Padaeng mine, established by PDI in 2003 with Baht 97 million endowment, to support the greening mission.

## Tak smelter

The smelter's environmental management system has been certified to ISO 14001 as well.

In a further demonstration of its green commitment, a new residue pond, No.9, was begun to build in October 2012, after being granted permits from Department of Industrial Works and Office of Natural Resources and Environment Policy and Planning.

When completed in April 2013, the pond will have the capacity to hold 1.08 million cubic meters in residue disposed from the production process.

## Rayong roaster

The roaster was able to effectively keep the emission of sulphur dioxide to an average of merely 82 ppm, far below the legal limit of 500 ppm.

The plant has improved its waste water management treatment system to enhance efficiency.

## Overview of the Environmental Performance Indicators

Indicator	Measurement unit	Zinc smelter			Roaster plant		
		2012	2011	2010	2012	2011	2010
<b>Input indicators</b>	mt	279,993	274,723	283,580	108,311	126,580	121,479
Total materials used							
Total energy consumption	gigajoule	1,489,298	1,552,863	1,559,566	81,709	90,713	84,730
• Electricity	gigajoule/mt production <sup>1</sup>	14.75	14.69	14.76	0.77	0.75	0.73
• Electricity/mt production	gigajoule	288,977	317,088	310,669	12,920	21,827	21,331
• Fuel	gigajoule/mt production <sup>1</sup>	2.86	3.00	2.94	0.12	0.18	0.18
• Fuel/mt production							
Total water consumption	1,000 m <sup>3</sup>	2,134	1,810	1,622	363	415	323
• Water consumption/mt production	m <sup>3</sup> /mt production <sup>1</sup>	21.13	17.12	15.35	3.43	3.41	2.80
<b>Output indicators</b>							
Produced waste							
• Total waste produced	mt (wet weight)	637,699	638,932	616,217	2,084	921	426
• Disposal <sup>2</sup>	%	99.97	99.96	99.97	99.95	96.74	99.00
Emission to water							
Total emitted process water	1,000 m <sup>3</sup>	1,322	1,492	711	83	85	104
Total emitted metals	kg	456	415	347	67	72	136
<b>Effluent quality</b>							
• Zinc (<5 mg/l)	mg/l	0.35	0.25	0.37	0.80	0.83	1.28
• Cadmium (<0.03 mg/l)	mg/l	0.004	0.004	0.010	0.01	0.01	0.01
• Manganese (<5 mg/l)	mg/l	0.33	0.26	0.47	-	-	-
• Lead (<0.2 mg/l)	mg/l	0.001	0.005	0.050	-	-	-
Emission to air							
Total emitted metals	kg	416	620	933	40	13	12
Total emitted SOx	mt	252	276	267	66	85	233
Air quality							
1. Air emission							
• SO <sub>2</sub> at Acid plant (< 500 ppm)	ppm	46	47	43	82	127	288
• SO <sub>2</sub> at Boiler (< 950 ppm)	ppm	325	529	485	-	-	-
• Total suspended particulate at Boiler (< 240 mg/m <sup>3</sup> )	mg/m <sup>3</sup>	82	148	152	-	-	-
• Total suspended particulate at Bag Filter (< 400 mg/m <sup>3</sup> )	mg/m <sup>3</sup>	9.43	8.86	8.82	-	-	-
2. Ambient air quality							
• Total suspended particulate (< 0.33 mg/m <sup>3</sup> )	mg/m <sup>3</sup>	0.060	0.068	0.060	0.215	0.020	0.083
• Sulfur dioxide (SO <sub>2</sub> ) (average 24 hr <0.30 mg/m <sup>3</sup> )	mg/m <sup>3</sup>	0.02	0.01	0.02	-	-	-
(average 1 hr <0.30 ppm)	ppm	-	-	-	0.03	0.02	<0.01
<b>Greenhouse Gas</b>							
Total greenhouse gas	mt	21,910	24,087	23,598	0.99	1.67	1.44
Total greenhouse gas/mt production	kg/mt production <sup>1</sup>	217	228	223	0.01	0.01	0.01

Note : 1. mt production means mt of is zinc cathode for Tak smelter, mt of calcine and washed oxide for Roaster plant

2. % Disposal : % of total waste were treated by landfill (internal and external) and other % of waste were recycled and reused

Indicator	Measurement unit	Zinc smelter			Roaster plant			Mae Sod mine		
		2012	2011	2010	2012	2011	2010	2012	2011	2010
<b>Safety indicators</b>										
Last time injury frequency rate, LTIFR	accidents/million working hours	0.00	2.41	2.39	0.00	0.00	0.00	0.00	1.76	1.67
Injury severity rate, ISR	lost days/million working hours	0.00	47.23	74.77	0.00	0.00	0.00	0.00	126.8	113.6
No. of employee	number	584	590	589	95	96	104	259	268	281
<b>Financial indicators</b>										
<b>Environmental investment and operating costs</b>										
Total environmental investment costs	million Baht	110.00	6.00	0.00	18.60	9.90	5.70	1.89	0.00	0.07
Total environmental operating costs	million Baht	161.00	164.00	173.00	57.00	48.00	24.30	22.96	16.74	23.91



## Human Resources Review

### Revised HR structure geared to support new vision

The year 2012 marked the beginning of a crucial transformation in the realm of human resources (HR) that would have a far-reaching effect on PDI's revitalised growth plan.

A series of bold new initiatives were adopted and gradually phased in to respond to the Company's realigned corporate vision and strategy, yet building on its existing strong company values and code of conduct.

The transformation reinforces PDI's firm belief that a capable, happy and dedicated workforce is a key to the success of an organization, particularly at the time when operating environment has become more dynamic and difficult.

Being instrumental to such a transformation is the roll-out of the "Business Excellence" model, a tool which has been successfully applied among leading companies globally to achieve maximum productivity through an integrated working process that systematically drives individual's performance with measurable results.

There was a reorganisation in the offing, essentially to fit specialized functional units, which were newly



created with specific missions under PDI's realigned vision, into the revised corporate structure.

Incorporating into the new structure and tasked to stimulate creativity and innovation in the Company is the Process & Technology Innovation Department which consists of Research & Development, Technical Services and Knowledge Management.



**Saiya Sukhnuam**  
Section Chief-Laboratory

#### Solution finder:

PDI Rayong roaster's laboratory has a double role in tackling technical problems both for the Company and clients.

"Our job is tough but challenging. However, with our expertise, dedicated team and resources, we're in a good position to deliver excellent results," says Saiya Sukhnuam, Section Chief-Laboratory exceeding a 15-year working experience at PDI.

"The transformation PDI is experiencing offers a good opportunity for us to develop and demonstrate the best of our capability," she adds.

Meanwhile, the Public Relations function was renamed as Corporate Communication to reflect its expanded role as a central communicator for the PDI both externally and internally.

While training has remained high on PDI's human resources development agenda, an exciting development program customised to enhance PDI senior executives' knowledge in specific fields that support the Business Excellence template is added.

Expected to start in mid-2013, the program would involve the majority of those who help leading the strengthened PDI to meet new challenges and completing revised mission.

These senior executives will be trained by world-class experts in subjects most relevant to PDI, using real-life case studies.

In 2012, nearly half of PDI's staff underwent various kinds of seminar and training, mostly technical, through the so-called Functional Competency Model concept. The overall exercise involved an expenditure of around Baht 3 million.

Recruiting and retaining capable people has been a crucial part of PDI's human resources policy.

The Company will ensure that its remunerations, both in terms of compensations & benefits, are not only in line with their responsibilities and value they add to the organisation but are competitive with those offered by the industries.

Communications will receive an impetus under the renewed HR drive that will exploit all modes of modern communication, especially information technology, for a seamless connection among all members of PDI.

Furthermore, there will be greater interactions between top management, particularly by the PDI managing director, and staff.

All in all, the revised HR management policy is geared towards creating an environment that is conducive to the development of PDI staff, enhancing their performance while taking care of their well-being.

In 2012, PDI increased the level of welfare and assistance to its staff and their families to raise their quality of life; offering more scholarships; providing more contribution to staff's family health insurance; and educating staff about the alternative investment schemes under the Company's Provident Fund, known as Employee's Choice, which came into effect on January 1, 2013.

PDI's workforce at the end of 2012 stood at 979, 18% of whom with bachelor degrees or above and 40% were vocational college level.

The majority of employees are natives of Tak and other northern Thai provinces.

The average age of employees is 44 and each of them has worked for PDI for 17 years. Employee turnover in 2012 was about 2%.



**Sayan Chailangka**  
Foreman-Cell House

#### **Safety first:**

Having clocked up nearly 30 years in working experience at Padaeng's Tak smelter, Foreman Sayan Chailangka witnesses that safety has truly been a critical part of the Company's operating culture.

"Padaeng takes safety at workplace very seriously, reflecting the Company's genuine desire to create a safe and healthy operating environment for its employees," says Sayan, 50.



## Corporate Social Responsibility (CSR)

### PDI's philanthropic mission amplifies



The 2012 record of PDI's philanthropic contributions to the betterment of communities neighboring its sites continued to reinforce the Company's unfaltering sustainable development philosophy.

Activities deployed by PDI's Mae Sod and Tak operations in the context of corporate social responsibility (CSR) were diverse and extensive, putting PDI at the forefront as one of the most active contributors to the social and environmental improvement in the province.

In financial terms, PDI's contribution to the course reached more than Baht 10 million in 2012, pushing the cumulative sum PDI has rendered for the purpose since 1981 close to Baht 200 million.

Funding as well as additional non-monetary support has been allocated to various areas vital to improve quality of life: public facilities, education, environment, health and religion-culture.

The 2012 achievements did respond to the real needs of the community, inspired by their concrete needs.

PDI's philanthropic mission has been complemented by Padaeng Quality of Life Development Foundation, an entity established by PDI in 2007 dedicated to upgrade the quality of life in rural areas.

### Public facilities

PDI's volunteers have worked hand in hand with local communities in building and improving common facilities and infrastructure such as roads and excavating clogged waterways.

The Company also engaged in charitable acts like providing water supply to communities and schools during droughts.

Communal facility development is at the top of PDI's CSR expenditures with cumulative amount exceeding Baht 65.5 million.



## Education

In 2012 PDI's educational patronage was enabled with a contribution of over Baht 3 million providing 620 scholarships at all education levels, targeting a vast variety of development themes.

These included the donation of school uniforms, bags, stationeries, teaching support tools like computers, fixing school buildings, dormitories and sports fields. Sponsoring school lunches supplemented the overall support program.

## Environment

PDI has actively pursued the reforestation program at its Mae Sod mine involving over 1,000 people from various sectors, including PDI staff, local government officials, communities, school children and teachers.

Inspired by His Majesty the King's initiative, activities include planting Vetiver grass, which has proven to be an ideal flora thanks to its contribution to soil erosion prevention and soil quality improvement.

Other activities focused on building check dams, widening canals and tree planting in various areas surrounding PDI workplaces.

Various "open house" activities were organized to provide opportunities for over 2,000 state officials, community leaders, villagers, teachers and students to appreciate PDI's production process and environmental management systems.

## Health

PDI persisted as a generous donor to Tak hospitals and public health centers with medical equipment such as breathing equipment, donated to the King Taksin Maharaj Hospital. PDI also donated an ambulance and supported an emergency medical team to reinforce the local emergency medical service provider for road accidents.



**Thanu Jampanil**  
Principal

### Education patronage:

Scholarships, computers, school lunches, school uniforms, Thai traditional musical instruments and English language teacher sponsorship are only a portion of the long list of contributions Padaeng regularly makes to Nong Bua Tai School.

The 70-year-old elementary public school has been attended by underprivileged children, aged from 3 to 12, in the neighbourhood.

"Our education standards exceed our expectations, thanks to the generous and consistent support from Padaeng," says Principal Thanu Jampanil.





## Religion & culture

PDI contributed to the restoration of places of worship and engaged in various religious ceremonies and cultural activities held in Tak.

and a team work collaboration with government agencies and local organizations in various community improvement programs.

## The Padaeng Quality of Life Development Foundation

Since its inception five years ago, the Foundation has contributed close to Baht 20 million to complement PDI's effort to upgrade the quality of life for villagers in rural areas.

The Foundation's works deal with public health care, community welfares, career development and education.

These works have been organized through the 60<sup>th</sup> Coronation Anniversary Fund for Health and Welfare; the promotion of hand-weaving careers among Kareni ethnic women living in Ban Pa De and Ban Tam Sua villages which are adjacent to PDI's Mae Sod mine;



**Chaidach Kaewpradit**  
Council President

### Good corporate neighbour:

Padaeng's Tak smelter has been an active supporter of Nong Bua Tai community in various manners, from offering scholarships to needy local students, and from local job creation to fixing artesian wells.

"Padaeng has become a source of panacea for us when our community needs whatever type of support as government budget allocation is too short," says Chaidach Kaewpradit, the Council President, adding "Thank you Padaeng."

## Corporate Social Responsibility Policy and Principles



Padaeng drives its business through innovation and sustainable growth. Our vision reflects Corporate Social Responsibility: We maximize added value for our clients, with respect to our people and the environment. We support the communities in which we operate and give the best possible return to our shareholders.

Anywhere we operate, we accomplish our social and environmental responsibilities, in close collaboration with all stakeholders. They include: our people, the public, non-governmental organizations and our shareholders.

Our people are our most valuable assets. We guide them with honesty and fairness and are committed to maintain a non-discriminatory, safe and healthy working environment. We enable their personal development whilst invigorating a balance between their private and professional lives.

Any discrimination within our company based on race, religion, gender, sexuality, age, political opinion, language, physical challenge is not tolerated.

We manage the environmental impact of our activities with a high sense of responsibility and awareness. We continuously develop our processes to minimize their environmental impact. We apply - beyond legal requirement - the best available environmental technology solutions in all processes.

We ensure effective stewardship of natural resources by minimizing our environmental footprint, reducing waste, and using energy, water and other raw materials efficiently and effectively.

We support the improvement of society by building stimulating relationships and engaging clearly, openly and honestly with the local communities. We encourage our executives and all our people to participate in community volunteering.

We value the traditions and culture of Thailand and comply with all legal regulations.

We develop and implement policies to ensure that all of our partners and particularly our suppliers act in accordance with social responsibility standards.

Supported by our Code of Conduct – governing the acts and working relations of people, executives and board members with all stakeholders - we fight corruption in all its forms.

We consider our success in corporate social responsibility as a significant criterion for evaluating the overall company performance.

We share this policy with our people, partners and shareholders to illustrate our public commitment to fulfill our responsibility in creating a better world and a better future for mankind.

**Arsa Sarasin**

Chairman of the Board

**Francis Vanbellen**

Managing Director

March 2013



# The Year in Review

## Sales and Market Review

### PDI records robust sales in the backdrop of hostile market environment



From the perspective of sales, 2012 was a good year for PDI with combined sales volumes of SHG zinc metal and zinc alloy leaping 13.3% over the previous year to 107,711 mt.

That was better than expected as PDI benefited from stronger domestic and export demand in spite of the sluggish global consumption rate and the hostile market environment in the year.

Domestic sales for 2012 grew by 13% year-on-year to 91,481 mt whilst overseas shipments increased by 14% to 16,230 mt.

PDI's 2012 sales of SHG rose 1.8% to 62,774 mt as zinc alloy volumes soared 34.6% to 44,937 mt.

Thailand's recovery from the worst flood in 70 years which took place in the last quarter of 2011, the emergence of infrastructure projects and a major boost to the Kingdom's automotive industry primarily by the government's first-time car buyer policy, spurred extra zinc demand for galvanising in 2012.

PDI faced intense competition from zinc ingot importers who sought to appeal to local industrial users with lower prices, a strategy which appeared to offer lesser values than PDI's hallmark of product quality and services.

The year 2012 saw PDI introducing a new product to the market - zinc-nickel with 0.15% nickel content - as an alternative to SHG or the conventional zinc-nickel with 0.5% nickel composition for high-quality galvanising application.

Using zinc-nickel in place of SHG reduces users' cost by 13%, an advantage happily taken by buyers and fuelling PDI's zinc alloy sales to represent 42% of its overall metal sales in 2012, up from 35% recorded in the previous year.

PDI has been proactively promoting the transfer of technology in the fields of production improvement and development to die-cast and galvanising industries through technical seminars to enhance their growths.

In another initiative to foster closer collaboration and strengthen partnership with local galvanising operators, PDI played a leading role to found Thai Galvanizing Association (TGA) in November 2012 with eleven out of the country's 25 operators have become members.

One of TGA's key objectives is to attempt to create unified standards for the industries, promoting exchange of information, technical knowhow and sharing best practice.

## Hostile environment

Impeding PDI's growths in 2012 was lower global zinc consumption, especially in the crisis-hit Europe plus China, high production volumes and excessive global stocks have altogether depressed zinc prices.

According to the International Lead and Zinc Study Group (ILZSG), the Portugal-based commodity Organization set up by the United Nations in 1959, global zinc demand dropped 2.8% in 2012 to 12.40 million mt.

Production at the end of the year was at 267,000 mt higher demand, pushing up stocks at the London Metal Exchange (LME) by 432,000 mt to a record high of 1.22 million mt at the end of the year.

Consequently, that situation caused zinc price on cash delivery basis to plummet to an annual average of USD 1,948 per mt, a drop of 11% from the previous year's average.

## Positive outlook

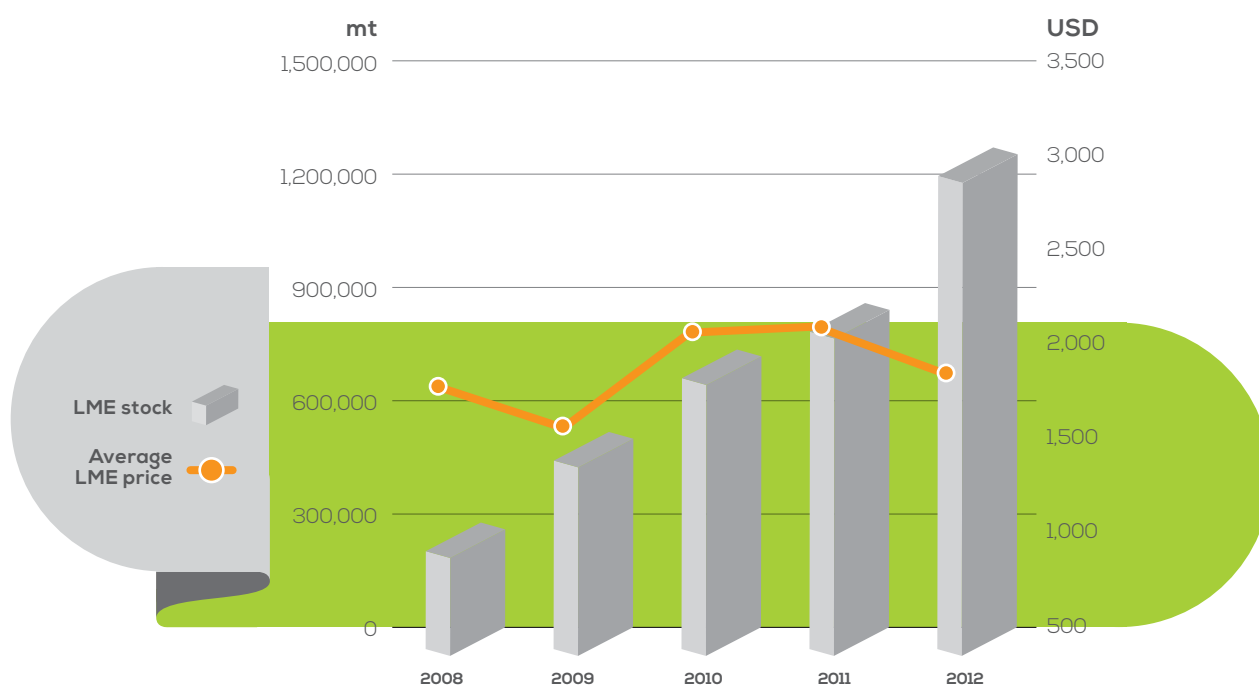
PDI will strive to sustain its dominant market position in the core domestic market by consolidating its share as demand grows.

Specifically, PDI aims to boost its sales of zinc alloy, whose importance is eclipsing SHG, over the next five years to 65,000 mt in 2017, or 44% more.

Offering quality products at competitive prices and providing continuous technical supports and other services to clients will serve as catalysts for future sales growth for PDI.

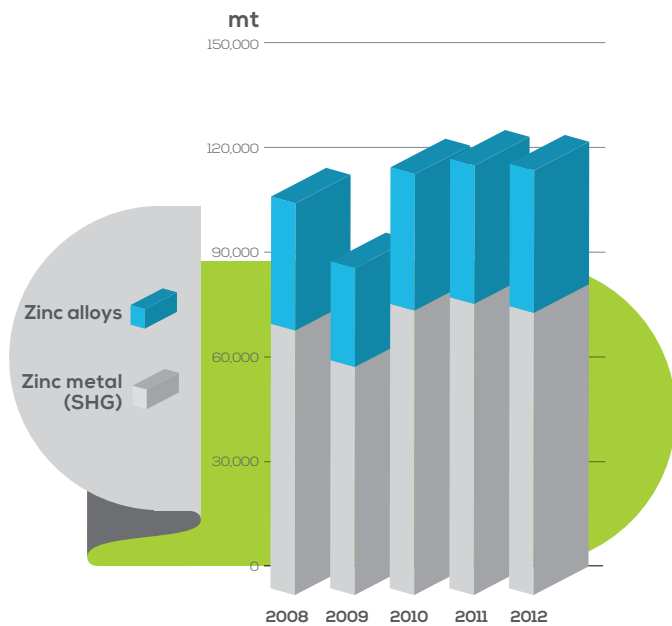
Its 31-year expertise and experience in the zinc industry will also go a long way towards building its future business.

**Figure 1 : LME zinc prices and stock levels during the past 5 years**

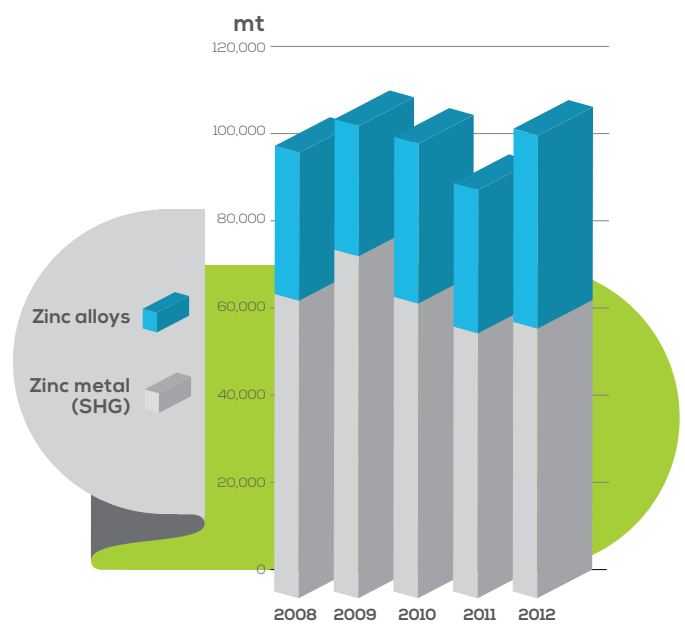




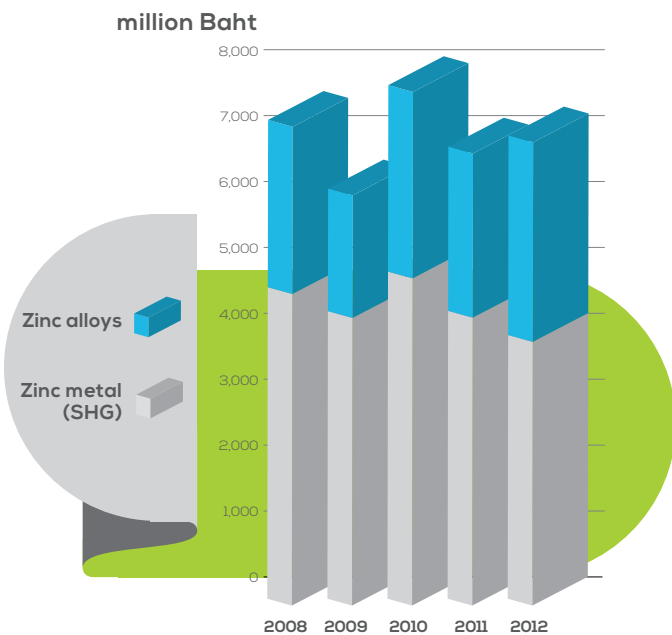
**Figure 2 : Zinc consumption in Thailand from 2008-2012**



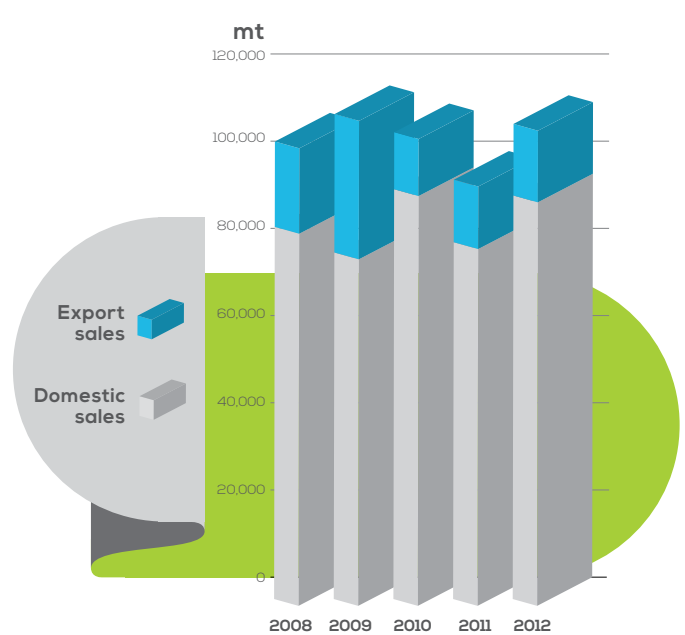
**Figure 3 : Sales volume of zinc metal and alloys from 2008-2012**



**Figure 4 : Sales value of zinc metal and alloys from 2008-2012**



**Figure 5 : Sales volume of zinc metal from 2008-2012**



## Operations



### Raw material procurement

#### Diversification key to raw supply security

Diversification of raw material sources and varieties is the name of the game at PDI which strives to ensure security of supplies to the Tak smelter.

The fact that Tak smelter was designed for great flexibility to process diverse kinds of zinc ores, not just zinc sulphide like other smelters, offers economic advantage and a competitive edge.

Aside from receiving zinc silicate from PDI's own Mae Sod mine, Padaeng imported a total of over 150,000 mt of ores both in the forms of sulphide and non-sulphide as well as those classified as secondary raw material.

In 2013, PDI will continue to import zinc sulphide and non-sulphide from all over the globe. Additionally important volumes of crude oxide, from EAF-dust (Electric Arc Furnace dust) recycling will be contracted, in consistence with the Company's raw material diversification and recycling strategy.

### Smelter operations

#### Realignment paves the way for growth and sustainability

In 2012, PDI's Tak Smelter made big strides in improving the economy of its operation by adopting a streamlined cost strategy and new major initiatives that will make its works leaner and more cost effective.

The year saw the Smelter realigned itself to scale down production in the period when electricity charges were high, ramping up the usage of a secondary raw material, gearing up its output towards higher-value products and embarking on a series of facility upgrade costing about Baht 146 million.

Those action plans were orchestrated towards enabling PDI to weather the global price ebb of zinc ingot, rising operating costs especially electricity, and market competition.

#### Production realignment Curtailling peak-rate power use

Foremost was the decision to reduce the Smelter's production during the period of 09.00-22.00 hrs, when the public electricity charges were high, while continuing to take full advantage of lower power tariff in other period classified as off-peak.

The peak power charge imposed by the Electricity Generating Authority of Thailand (Egat) raised 1.44 Baht/kWh higher than the off-peak rates.

The power issue was crucial for the fact that electricity payment accounts for over 50% of the Smelter's operating costs and that the Tak facility has relied on power supplies from Egat's power grid 24-hour and 355 days a year

Consequently, the Smelter consumed 137 MWh in peak-period electricity in 2012 compared to 155 MWh a year ago, while maintaining its usage of off-peak power at the previous year level of 275 MWh.

The Smelter's total power bills for 2012 dropped to Baht 1.2 billion from Baht 1.3 billion in the previous year as the benefits of lower power consumption was partly diminished by dearer power charges.

## Ore feed revised

The Smelter adjusted its ore input in the year, cutting back on expensive overseas imports and raising secondary raw material. Zinc Silicate off-take from PDI's Mae Sod mine rose 35% to 150,000 dry mt, and washed zinc oxide growing 50%.

The Smelter's feeds in 2012 were 30% derived from PDI's own source, 60% from imports and 10% from other small domestic mines, reflecting a mix of raw material input.

## Lower output

Whilst the production realignment in 2012 resulted in lower overall output, the Smelter was able to capture better economy largely by means of cost control.

The Smelter produced 4% less zinc cathode than the previous year to record 101,000 mt, 6% less in total zinc ingot to 97,000 mt, 55% of which came in the form of SHG zinc ingot and 45% in zinc alloy.

A notable shift witnessed in the year was a 22% decline in SHG zinc ingot production volume to 53,000 mt on a 24% surge in zinc alloy output to 44,000 mt.

The increase in the production of zinc alloy, namely zinc nickel in particular, was meant to cash in on the higher value commanded by such product

as well as meeting specific demand for high-quality galvanising as well as for die-casting applications.

That adjustment brought about a change in the ratio between SHG zinc ingot and zinc alloys plus others to 55:45 versus 66:34 in the previous year.

## Cost reduction schemes

The year saw three important projects, designed to reduce production costs, boosting efficiency and productivity at the Smelter, went into full swing.

They are the Baht 55 million installation of a clean coal-fired boiler, the Baht 80 million by-product recovery machinery and a Baht 15 million washing plant improvement.

The first scheme involves the replacement of one of the three auxiliary fuel oil-run boilers to the one fuelled by bituminous coal which would slash fuel cost by 75% and reduce emission by seven times of the current levels.

Installation of the boiler from Japan was slated to begin in April 2013 and commissioning due in September 2013.

The by-product recovery facility, which enables PDI to extract valuable metals such as silver, lead and indium from ore residues the Smelter processes, is expected to be up and running in September 2013.

Once in operation, the expanded by-product recovery facility would generate extra annual revenue from the sale of these valuable metals.







The washing plant improvement was embarked upon in September 2012 with the objective of raising secondary material feed that was cheaper and more sustainable to source.

Scheduled to come on stream in July 2013, it was oriented towards maximising production of washed oxide with quality good enough to be fed into the smelter.

## Mining operations & exploration

### Output target met, new resource quest launched

#### Mae Sod mining operations

The PDI Mae Sod mine ended 2012 with a 5% rise in zinc metal containing production. The Mine recorded 31,000 mt of zinc metal containing output in the year against the backdrop of strengthened high grade ore production and lower concentrate yield, mainly due to the delay in the approval of the forestry permit required for the Mine's tailing storage facility area. Nevertheless, the Mine's total output in 2012 was in line with PDI's projections.

The Company is still waiting for the authorities' renewal of forestry land use permit (FLUP) related to one of its two mining leases. Although the life of the concession block is in force until 2017, the FLUP on the acreage expired in 2012.

Latest indications are for the Office of Natural Resources and Environmental Policy & Planning (ONEP) granting such an extension before the year-end 2013, enabling the Mine to continue its mining production to the normal level.



## Exploration in Mae Sod mine

In 2010 PDI applied for a new mining license (total area 27 hectares) in order to access additional zinc ores in the Padaeng Mining area. This will increase the size of the current pit and extend the mining area to ensure increased safety by reducing the pit slope angle.

The mining lease application is in the regulatory process. The Environment & Health Impact Assessment (EHIA) approval, by ONEP is pending. Once approved the mining lease application will be considered by the Ministry of Industry to submit to the Thai Cabinet, to approve mining in the designated area.

**Table 1: Mineral resources at Mae Sod mine (at a 3% Zn cut-off) as of December 31, 2012**

Category	dmt	Zinc grade (%)
Measured resources	528,000	11.7
Indicated resources	1,314,000	9.9
<b>Total</b>	<b>1,842,000</b>	<b>10.4</b>

*Competent person statement:* The information in this public report that relates to the mineral resources at the Padaeng mine, Mae Sod is based on information compiled by Mr. Anupong Piragunta (Mining Geologist, Padaeng Industry Public Company Limited). The Resource estimate was completed by Mr. Anupong Piragunta. Mr. Anupong Piragunta is a Member of the Australasian Institute of Mining and Metallurgy (#312663) and has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Anupong Piragunta consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

At the current rate of production at Padaeng mine, these reserves as shown in Table 2 are sufficient to sustain mining and beneficiation up to 5 years.

**Table 2: Ore reserves at Mae Sod mine (at a 3% Zn cut-off) as of December 31, 2012**

Category	dmt	Zinc grade (%)
Stock	133,000	8.5
Proven Reserve	504,000	11.2
Probable Reserve	1,187,000	9.3
<b>Total</b>	<b>1,824,000</b>	<b>9.8</b>

*Competent person statement:* The information in this public report that relates to the ore reserves at the Padaeng mine, Mae Sod is based on information compiled by Mr. Somchok Yu-iat (Production Manager, Padaeng Industry Public Company Limited). The Reserve estimate was completed by Mr. Somchok Yu-iat. Mr. Somchok Yu-iat is a Member of the Australasian Institute of Mining and Metallurgy (#301367) and has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Somchok Yu-iat consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

## Exploration in Southeast Asia

The Company intends to secure its short-medium and long-term zinc ore supplies. A strategic Mine Deal Project has been set-up to investigate a range of global mining opportunities.

Due to the increasingly strict regulations on exploration and mining in Thailand and to lack of clarity in Laos, exploration work has been ceased in both these countries. The Company however retains exploration license applications at Li, Lamphun and at Loei in Thailand. A non-JORC compliant mineral resource at Li was estimated at about 2.1 million dmt at 7.2% zinc and 1.2% lead (at a cut-off graded of 3% Zn).

Because of the absence of any significant Zn in the ore body in Mawkhi, Myanmar, PDI stopped exploration in that area. As a consequence PDI will intensify its search for other Zn deposits in Myanmar and is seeking potential mining investment opportunities. Zinc occurrence reconnaissance inside Myanmar, along the Thai-Myanmar border has been actively engaged since July 2012. This reconnaissance work has defined several interesting zones that warrant additional investigation.

## Copper project in Loei province (Puthep)

A 2004 cabinet resolution enabled a research agreement between the Department of Primary Industries and Mines (DPIM) and the Royal Forestry Department (RFD) under which Puthep undertook a two year exploration process on the PUT1 resource from 2006 until the end of October 2008. This 59,000 meter infill drilling program has been incorporated into the Mineral Resource Estimate of May 2009. This Resource Estimate was 160 million mt at 0.53% copper and 0.09 grams/mt gold at a cut off of 0.3% copper as published by the ASX (Australian Stock Exchange) announcement from PanAust (PDI's partner in this project) dated May 19, 2009.

The Puthep board decided to assess and review the technical and economical project feasibility in 2013. Even though the outcome is expected to remain profitable, take over by a third party is under consideration.

The main hurdle remains the approval of mining operational rights, in the actual anti-mining public opinion in Thailand.

**Table 3: PUT 1 Mineral resource (at a 0.3% Cu cut-off) as of May 1, 2009, Puthep copper project, Thailand**

0.3% Copper cut-off grade	Million (mt)	Copper grade (%)	Gold grade (g/mt)	Copper in-situ (000 mt)	Gold in-situ (000 oz)
Measured	41	0.58	0.08	240	102
Indicated	60	0.51	0.10	306	186
Inferred	60	0.50	0.10	300	183
<b>Total</b>	<b>160</b>	<b>0.53</b>	<b>0.09</b>	<b>846</b>	<b>471</b>

*The mineral resources estimates are based on an ordinary kriged model constrained by weathering and geological boundaries.*

**Competent person statement:** The data in this report that relates to the mineral resources is based on information reviewed by Mr. Dan Brost who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Dan Brost is an employee of PanAust Limited. Mr. Brost has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Brost consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.

## Operations at subsidiaries and affiliated companies

### Maesod Clean Energy Co., Ltd.

In its fourth year of operation, Maesod Clean Energy Co (MCE) raised its ethanol production and sales in 2012 over 50 million liters, up by 7% from the previous year's level of 47.7 million liters.

Higher production resulted from a 6% rise in delivery of sugarcane to MCE's plant in the year when the total tonnage reached 398,000 mt, compared to 375,000 mt in 2011.

Enhancing the production was enabled by the input of 60,000 mt of molasses obtained from external sources.

In 2012, the Company increased electricity sales, generated from its production process, to the Provincial Electricity Authority to 31.5 million kilowatt hours (kWh), up from 30.5 million kWh a year ago.

The increased ethanol output and power sales helped MCE to significantly narrow losses in 2012 from the previous year's level.

With sugarcane deliveries to MCE facility expected to increase to 420,000 mt in 2013, the Company is optimistic to turn its balance sheet to black, either by reaching a breakeven point or making a marginal profit.





## Process & Technology Innovation

### Technology and innovation get a powerful impetus



Research & Development (R&D) forms a critical part of PDI's refreshed approach in delivering the Company's vision for sustainable growth and securing a competitive advantage.

PDI has placed considerable importance on identifying and developing new technologies required for its production process, products and services.

Such importance was underscored by the emergence in December 2012 of a new unit, known as Process & Technology Innovation (PTI), to pursue innovation that will make the difference.

PTI is a major evolution of R&D activities which PDI has undertaken for a long time but is now upgraded with broader scopes of work and greater impulsion.

The past in-house R&D effort was largely oriented towards production process improvements and tackling short-term problems.

PTI's role will be more forward-looking by focusing its efforts in four well-defined domains: Fundamental Future Technology; Green Accomplishment Technology, Strategic Innovation of Productions & Processes and Technical Assistance to Production.

Its pursuit for innovation excellence will be carried out by means of stimulating innovation, managing R&D and knowledge management.

PTI will go about raising its R&D capability with the help of an expanded in-house research team, with three additional researchers plus six more assistants joining the mission in the first quarter of 2013.

PTI will take advantage of its profound industrial knowledge as well as tapping data and technological insights from external organisations such as the Brussels-based International Zinc Association (IZA) and various universities.

At the top of PTI's agenda is to extend the R&D coverage beyond process improvement to the more creative and sophisticated aspects in order to achieve divergent rather than convergent results.

For instance, PTI will look into the possibilities of commercially extracting non-ferrous metals such as silver and other secondary metals from feeds ore.

Stimulating innovation and creativity will be derived from approaches such as brainstorming - face-to-face communication and interdisciplinary exchange.



In the new platform, every nucleus of PDI will collectively play a part in the search for innovation.

The creation of a knowledge base on zinc trading, covering pricing and costing & supply, with the help of model simulations is underway in order to assist sound market strategy and production planning.

In 2012, part of PDI's R&D work contributed the improvement of the waste water treatment plant at PDI's roaster facility in Rayong, resulting in cost saving and better water discharge quality.

Dissemination of technical knowledge to downstream users constituted part of PDI's R&D mission and customer services offering with five technical conferences held in 2012.

Twenty downstream operators learnt about "hot dip galvanizing for steel corrosion protection," while numerous other die-cast groups went through "how to minimise zinc casting defect" courses with one of them took place in Ho Chi Minh City, Vietnam, in July.

At the same time, PDI technical service teams made a total of over 100 trips nationwide in 2012 to help tackling problems encountered by customers as well as providing other advisory services.



# Financial Review

## Overview of Company performance in 2012

*Note: The following management review is based on formation of accounts which may not have been audited. The purpose of presenting such a format is to disclose the results in a way more useful to the reader than that of the heavily regulated financial statements.*

The Company generates earnings by converting raw materials such as imported concentrates, recycled zinc residues and ore from its own mine into marketable zinc metal. The revenues of the Company are highly affected by the commodity (zinc) prices, exchange rate of Baht/USD and the treatment charges (TC) received from the mines to process their zinc concentrates into zinc metal.

The London Metal Exchange (LME) average zinc cash settlement price for 2012 was USD 1,948 per mt (USD/mt), decreased with 11% from the price of USD 2,193/mt achieved in 2011. After a continuous decreasing zinc price during the first 9 months of 2012, recovery was seen in the fourth quarter of the year where zinc was traded near USD 2,000/mt from below USD 1,900/mt as of ending of the first 9 months. The average USD exchange rate to the Thai Baht for 2012 was Baht 31.22/USD; compared with Baht 30.63/USD in 2011. The combined zinc price and USD exchange rate to the Thai Baht, resulted in an average zinc price expressed in Thai Baht down from Baht 67,185/mt in 2011 to Baht 60,821/mt in 2012.

For 2012, net revenues from zinc sales of the Company reached to Baht 7,061 million as compared to Baht 6,818 million in 2011. This 13% increase in sales volume did setoff partly the impact from 9% reduction in 2012 average Thai Baht zinc price. The Company posted a net loss result of Baht 528 million compared to Baht 42 million net profit from previous

year. This was highly affected by the provision loss of Baht 255 million from reassessment of exploration cost in Thailand and neighbouring countries.

The significant increase in electricity price, raising the operating costs, has a major impact on the net loss of 2012. The decreasing TCs and zinc prices, contributed to the loss, resulting in a high raw material cost.

The revenues of the Group for year 2012 reached Baht 7,602 million as compared to Baht 7,323 million in 2011. The consolidated net loss reached Baht 590 million in 2012 compared to a net profit of Baht 4 million in 2011 with net earning per share of Baht (2.53) compared to Baht 0.02 per share in 2011.

2012 has been a difficult year for the Company. An action plan has been launched to deliver its first positive results in 2013. This strategic roadmap aims to realise improvements in supply, operations and sales. It has been deployed into personal objectives of management and will be monitored strictly and closely.

## Statement of financial position

### Assets and liabilities

At the end of 2012, there was a decrease of Baht 967 million in total assets of the Company, mainly from a decrease of Baht 1,145 million in inventory from higher sales turnover recovered from last year flood and a lower zinc price at the end of 2012 compared to those of the previous year. In addition, the non-current asset decreased by Baht 73 million, mainly due to a provision of Baht 76 million from reassessment of exploration and acquisition assets in Thailand.

At the consolidated level, the net decrease in exploration and acquisition costs are mainly due to provisions after reassessment of exploration activities in Thailand and neighbouring countries.



The total liabilities of the Company decreased with Baht 326 million, mainly from the accounts payable.

At the consolidated level, the liabilities decreased by Baht 325 million due to same reason as in the Company level. At the end of 2012, term loan and accrued interest expenses of Puthep, provided by PNA (Puthep) Pty Ltd, was Baht 494 million repayable upon the success of the Puthep copper project.

## Shareholder's equity

As of 31 December 2012, total shareholder's equity of the Company amounted to Baht 3,761 million, a net decrease of Baht 641 million from the same date of the previous year. A dividend of Baht 113 million was paid in May 2012. The consolidated shareholder's equity amounted to Baht 3,870 million compared to Baht 4,579 million as of 31 December 2011.

Due to the operational loss and cash need for future strategic investments, it is proposed not to pay any dividend from 2012 operations.

## Cash flow and capital expenditure

The net cash generated from operating activities of the Group in 2012 was Baht 661 million, mainly from the decrease in inventories and accounts receivable.

The Group invested in plant and equipment for the amount of Baht 362 million, while the investment in exploration significantly reduced to only Baht 6 million compared to Baht 93 million in 2011.

The Company still maintains a strong financial position with consolidated net cash at the end of 2012 reaching Baht 1,027 million.

## Development in related companies

Since 21 August 2000, a Participation Agreement was kicked off between the Company and PANAUS Limited ("PanAust") and PNA (Puthep) Pty Ltd. of Australia, (a wholly owned subsidiary of PanAust), to embark on exploration and mining of the Puthep Copper Project in the Loei Province, North-East Thailand. As of December 2012, Puthep decided to complete an assessment and review to update the project viability. Although the project is technically feasible and economically viable, obtaining a legal permit to operate the mine remains difficult, because of a negative overall public mining image in Thailand. A possible option remains to sell the project to an interested third party.

For Padaeng Industry (Laos) Co., Ltd., after reassessing the project it was concluded that significant expenditures and other alternative drilling methods would be required to proceed further. Therefore, until a viable option for development can be determined, the Company has recognised a provision for impairment in respect to exploration cost capitalized for this financial year.

For South East Asia Metal Co., Ltd. ("SEAMET"), on 31 December 2012, SEAMET and Mayflower signed a termination agreement to stop further operations as the exploration activities did not identify any commercially recoverable resources.

For Maesod Clean Energy Co., Ltd. ("MCE"), the Company have extended providing of a Baht 105 million loan to MCE under the term loan agreement on October 5, 2011. The loan was provided to MCE with the purpose of improving the liquidity of MCE. During the year, MCE has been affected by high raw material cost from molasses used in ethanol production.



## Financial Review

	2012		2011	
Averages				
LME Zn (USD/mt)		1,948		2,193
LME Cu (USD/mt)		7,950		8,821
USD/Baht		31.22		30.63
Zn (Baht/mt)		60,821		67,185
Cu (Baht/mt)		248,207		270,201

	mt	2012 million Baht	mt	2011 million Baht
Net Zinc sales	107,711	7,061	95,062	6,818
Net Copper sales	423	106	561	148
Net Acid sales	86,595	238	103,351	274
Net PLP sales	680	17	0	0
<b>Company revenue</b>		<b>7,422</b>		<b>7,240</b>
<b>Other income</b>		<b>6</b>		<b>6</b>
<b>Expenses</b>				
Zinc purchased		3,783		3,834
Alloying metals		106		106
Sulphur		271		257
Total raw materials		4,159		4,197
Personnel expenses		563		466
Energy expenses		1,646		1,281
Materials and supplies		72		70
Consumables		354		267
Services (freight, contracts)		497		542
Other expenses		169		131
Depreciation& amortisation		283		302
<b>Subtotal</b>		<b>7,744</b>		<b>7,255</b>
Gain (loss) on foreign exchange		44		(22)
Financial income (expenses) - net		(1)		(7)
Gain from fixed asset sale		0		105
Loss from provision		(255)		0
Net consolidation effect - profit/(loss)		(37)		(26)
Share of loss from joint venture		(24)		(11)
<b>Operating result</b>		<b>(590)</b>		<b>30</b>
Corporate income tax		0		(26)
<b>Net operating result</b>		<b>(590)</b>		<b>4</b>

Note: PLP stands for Padaeng Leach Product (Lead-silver residue)

## 032 Business Risk Assessment

### A balanced strategy to identify and mitigate risks

#### Credit risk

PDI's main credit risks are the accounts receivable. The Company actively monitors payment performance of all its customers and evaluates their solvency prior to granting any credit. In addition, for non-credit customers the Company applies credit insurance systems to cover its receivables, not supported by cash advance, bank guarantee or letter of credit.

#### Commodity price exposure

By the nature of its business, PDI is exposed to the fluctuations in the market prices of commodities. The Company engages only in transactional hedging meaning that it generally limits hedging transactions to cover the time risks between raw material purchase and sales of metal and to cover its exposure on fixed-price forward sales of metal to its customers.

However in 2012 the Company has strategically hedged a total of 15,600 mt of zinc covering 70% of PDI's latest expected Mae Sod mine production for 2013. This forward sales protects the Company's income against fluctuations in the LME zinc price and the USD to Thai Baht exchange rate. Although these strategic hedging transactions prevent the Company from taking advantage of a potential further upside on the zinc metal tonnage hedged, the Company will in any case lock-in an acceptable return for its shareholders and protects itself against drops of the zinc price in the course of 2013.

#### Currency exposure

The Company incurs foreign currency risk on sales, purchases and borrowings that are dominated in a currency other than Thai Baht. The currency giving rise to this risk is primarily the USD. The Company manages this exposure by using foreign exchange forward contracts and its USD deposits.

#### Exploration

In order to consolidate the supply needs for its smelter, the Company and some of its subsidiaries perform exploration activities. These expenses are capitalised and if necessary impaired accordingly the potential of the exploration projects.

Regular assessments by an executive management team, once satisfactory reliable data have been collected and compiled, reduce both uncertainty and risk level related to these activated costs.

#### Environmental issues

The Company operates its mine and smelter under licenses and permits issued by governmental authorities, requiring emissions to meet regulatory standards.

At the Mine, provision is made for the present value of the rehabilitation and risk fund to the extent of the present obligations.

Whenever possible management estimates and anticipates costs incurring by upcoming changes in environmental laws and regulations, as to provide sufficient provisions for environmental related expected expenditures.





# Revenue Structure



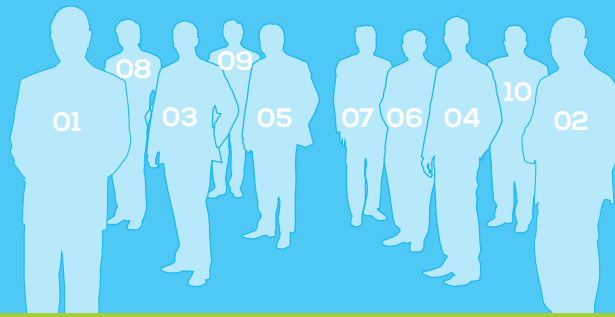
The Company's total revenue for the consolidated financial statement can be classified by types of product (2010 - 2012)

Product	2012 Revenue million Baht	% of Total revenue	2011 Revenue million Baht	% of Total revenue	2010 Revenue million Baht	% of Total revenue
Zinc metal (SHG)	4,031.97	52.84	4,538.09	59.36	4,962.08	60.80
Zinc alloy	3,051.12	39.98	2,487.13	33.88	2,828.61	34.66
Sulphuric acid	238.06	3.12	274.25	3.74	184.02	2.25
Other revenue	310.05	4.06	221.94	3.02	186.91	2.29
<b>Total revenue</b>	<b>7,631.20</b>	<b>100.00</b>	<b>7,341.41</b>	<b>100.00</b>	<b>8,161.62</b>	<b>100.00</b>

## 2012 Board of Directors, Strategic Committee, Audit Committee and Nomination and Remuneration Committee









**01**  
**Arsa  
Sarasin**  
76 Years Old  
Chairman

**Education** • B.A. (Business Administration), Boston University, U.S.A.

**Training** • Thai Institute of Directors Association - Director Accreditation Program (DAP) - Finance for Non-Finance Directors - Audit Committee Program (ACP)

**Current position** • Chairman, Padaeng Industry Public Company Limited • Chairman, Thai Asia Pacific Brewery Company Limited • Chairman, Siam Makro Public Company Limited • Chairman, Amata City Company Limited • Chairman of the Board of Governors, Amata Spring Country Club • Chairman, Maesod Clean Energy Company Limited • Chairman of Advisor, Thai-Laos Association • Vice Chairman, Thai Tapioca Development Institute • Director, Thai Pure Drinks Company Limited • Director and Member of the Governance and Nomination Committee, the Siam Cement Public Company Limited • Independent Director and Audit Committee Member of Charoen Pokphand Foods Public Company Limited

**Working experience** • Chief Executive Officer, Padaeng Industry Public Company Limited • Director-General, Department of Economic Affairs, Ministry of Foreign Affairs • Thai Ambassador to Belgium & Chief of Mission to the European Community • Director-General, Department of Political Affairs, Ministry of Foreign Affairs • The Permanent Secretary of the Ministry of Foreign Affairs • Thai Ambassador to the U.S.A. • The Minister of Foreign Affairs • Chairman of the Asia-Europe Business Forum II • Vice Chairman of the Board of Directors and Advisor, Bangkok Bank Public Company Limited • Director, Vinythai Public Company Limited • Chairman of the Thai-Laos Association • His Majesty's Principal Private Secretary

**02**  
**Francis  
Vanbellen**  
55 Years old  
Director, Managing Director and  
Strategic Committee Member

**Education** • Master's Degree in Chemical Engineering, Catholic University Leuven (KUL), Belgium • Master of Business Administration, Vlerick Management School, Belgium • Strategic Innovation Management, Insead, Fontainebleau, France • Business Excellence Assessor, EFQM, Brussels, Belgium

**Current position** • Managing Director, Padaeng Industry Public Company Limited • Owner Vanbellen Consulting, Belgium

**Working experience** • Managing Director, Global Mining and Minerals, Belgium • Chairman of the Board, Global Mining and Minerals, Germany • Manager, special metals refinery, Umicore, Hoboken, Belgium • Manager, precious metals refinery, Umicore, Hoboken, Belgium • Manager, raw materials sampling department, Umicore, Hoboken, Belgium • Head of Department human resources & business excellence, Umicore Brussels, Belgium • Head of Department knowledge & supply chain management, Umicore, Hoboken, Belgium • Head of Department Precious Metals Operations, Umicore, Hoboken, Belgium • Plant Manager, Umicore Precious Metals Refining Operations, Hoboken, Belgium

**03**  
**Ahmad  
Bin Fahad**  
42 Years Old  
Director, Strategic Committee  
Member and Nomination and  
Remuneration Committee Member

**Education** • Master of Sciences in Finance, Boston University, U.S.A. • B.Sc. in International Management, Boston University, U.S.A.

**Current position** • Chief Executive Officer, Istithmar World Ventures LLC, UAE

**Working experience** • 17 Years of Investment Banking, Mergers & Acquisitions experience, covering telecom & technology, real estate and financial institutions and Agribusinesses.

**Previous work experience** • Managing Director/Investment - Millennium Finance Corporation • Chief Investment Officer in Etisalat International Investment • Investment Director - Long Wing Venture Capital New York, U.S.A.

**04**  
**Ravi  
Gidwani**  
37 Years Old  
Director and Strategic  
Committee Member

**Education** • MBA, SDA Bocconi School of Management, Italy • B.Sc. (Econ.) Economics, London School of Economics, UK

**Current position** • Executive Director - Private Equity, Istithmar World PJSC

**Working experience** • Consultant, Marakon Associates • Senior Analyst, McKinsey & Co. • Equity Analyst, ABN AMRO

**05**  
**Surapol  
Supradit**  
61 Years Old  
Director and Strategic  
Committee Member

**Education** • National Defence College of Thailand (Class 46) • Cert. in Middle Management, Revenue, Canada • Cert. in English for Management, University of Sydney, Australia • Bachelor of Law, Thammasat University • Bachelor of Economics, Sukhothai Thammathirat University • The Thai Bar, Institute of Legal Education of the Thai Bar • Master of Business Administration (Organization Management), Dhurakij Pundit University (on university scholarship)

**Training** • Thai Institute of Directors Association - Director Certification Program 2006

**Current position** • Director, Metropolitan Waterworks Authority • Member, the Council of Phuket Rajabhat University

**Working experiences** • Consultant in Development and Tax Administration, Excise Department • Chairman, the Liquor Distillery Organization • Deputy Director, Excise Department • Assistant to the Permanent Secretary of the Ministry of Finance • Head of the Office of the Secretary to the Minister of Finance • Chairman, Playingcards Factory • Director, Thailand Post Co., Ltd. • Director, Fish Marketing Organization • Committee, Wastewater Management Authority • Director, Thai Maritime Navigation Company Limited

## 06 Paron Israsena

85 Years Old  
Independent Director,  
Audit Committee Member and  
Nomination and Remuneration  
Committee Chairman

**Education** • Master of Engineering (M.E.), Massachusetts Institute of Technology (MIT), U.S.A.

**Training** • Thai Institute of Directors Association - Role of the Compensation Committee - The Characteristics of Effective Directors - Improving the Quality of Financial Reporting - DAP : Directors Accreditation Program, Class 4/2003 - The Board's Role in Setting Effective Compensation Policy • The Stock Exchange of Thailand - The Audit Committee...the Expectation Increase and the Responsibility Expansion

**Current position** • Member and Chairman of Audit Committee, the Thai Red Cross Society • Director and Chairman of the Audit Committee, Summakorn Public Company Limited • Chairman of the Board of Directors, Thaicom Public Company Limited • Expert in Standardization, Nation Standardization Council • Director, Council of Chiang Mai Rajabhat University • Chairman, Shinawatra University Council • Board Member, the National Economic and Social Development Board • Director of the Selection Committee, the Board of Directors of a State Enterprise, Ministry of Finance

**Working experience** • President, the Siam Cement Public Company Limited • Chairman, the Federation of Thai Industries • Senator and Member of National Legislative Assembly • Chairman, Committee on Economics & Industry of the Senate • Director, Thailand Productivity Institute • Director and Member of the Audit Committee, the Siam Cement Public Company Limited • Director, Office of the Education Council • Chairman, Office of the Basic Education Committee, Ministry of Education • Honorary Council member of Chulalongkorn University • Director, Chiang Mai University Council

## 07 Karel Vinck

74 Years Old  
Independent Director and  
Strategic Committee Member

**Education** • Master's Degree in Electrical and Mechanical Engineering, Katholieke Universiteit Leuven (KUL), Belgium • Master of Business Administration, Cornell University, U.S.A.

**Current position** • Chairman of BAM (Antwerp Mobility Program), Belgium • Director, La Monnaie Opera House • Coordinator European Commission ERTMS, for Railway Transport • Director, Tessenderlo Chemicals, Belgium • Senior Advisor, Roland Berger Consultants, Germany

**Working experience** • CEO, Bekaert, Belgium • Chairman, Umicore, Belgium • Chief Executive Officer, NMBS/SNCB (Belgian Railways), Belgium • Chairman, Advance Minerals Asia, Singapore • Chief Executive Officer, Umicore, Belgium

## 08 Vinai Vamvanij

72 Years Old  
Independent Director and  
Audit Committee Chairman

**Education** • Professional Accountancy, CPA, Australia

**Training** • Thai Institute of Directors Association - Chartered Director Class 2007 - Audit Committee Program 2007 - DCP Refresher Course - Director Certification Program 2001 - Chairman 2000 - Creating a Strategic Direction

**Current position** • Director, Continental Petrochemical (Thailand) Company Limited • Director, Palang Sophon Two Company Limited

**Working experience** • Independent Director and Audit Committee, Christiani & Nielsen (Thai) Public Company Limited • Executive Director, Thonburi Automotive Assembly Plant Company Limited • President, Eternal Petrochemical Company Limited • Chief Executive Officer, Aquastar Group

## 09 Aswin Kongsiri

68 Years Old  
Independent Director,  
Audit Committee Member  
and Nomination and  
Remuneration Member

**Education** • B.A. (Hons.) in Philosophy, Politics and Economics, Oxford University, England

**Training** • Banff School of Advanced Management, Alberta, Canada • The National Defence Course for the Joint State-Private Sectors, Class 6, National Defence College • Thai Institute of Directors Association - Chairman 2000, Class 5/2001, - Director Certification Program (DCP), Class 11/2001

**Current position** • Member, Monetary Policy Committee, Bank of Thailand • Chairman, Ch. Kamchang Public Company Limited • Chairman, Thai Orix Leasing Company Limited • Chairman, Ton Poh Thailand Fund • Independent Director, Bangkok Aviation Fuel Services Public Company Limited • Independent Director, OHTL Public Company Limited (Mandarin Oriental Hotel) • Independent Director, Thai Reinsurance Public Company Limited

**Working experience** • Governor, the Stock Exchange of Thailand • Chairman, Thoresen Thai Agencies Public Company Limited • Vice Chairman, Electricity Generating Public Company Limited • Chairman, Krungthai-AXA Life Insurance Company Limited • Assembly Member, the National Legislative Assembly • Director and Executive Director, Krung Thai Bank Public Company Limited • Independent Director, Thai Rating and Information Service Company Limited • Director and Executive Director, Siam Commercial Bank Public Company Limited • President, the Industrial Finance Corporation of Thailand

## 10 Pinit Vongmasa

68 Years Old  
Independent Director, Strategic  
Committee Member and  
Nomination and Remuneration  
Committee Member

**Education** • B.Eng. (Electrical Engineering), Chulalongkorn University • M.S. (Ind. Mgt.), Oklahoma State University, U.S.A. • Advanced Management Program, Harvard University, U.S.A.

**Training** • Thai Institute of Directors Association - Director Certification Program 2001

**Current position** • Director, Strategic Committee Member and Nomination and Remuneration Committee Member, Padaeng Industry Public Company Limited

**Working experience** • Chief Executive Officer, Padaeng Industry Public Company Limited • President and Chief Executive Officer, Padaeng Industry Public Company Limited • President, the Siam Kubota Industry Company Limited • Managing Director, the CPAC Concrete Products Company Limited

## 038 Company Executives



**01** Francis Vanbellen  
Managing Director

**03** Tianchai Singhakarn  
Mine Manager

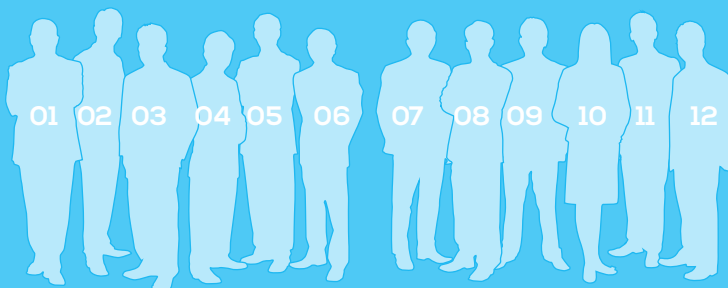
**05** Chaya Hasdiseve  
Vice President - Procurement

**02** Suwit Uawanichkul  
Plant Manager

**04** Chitchai Thaveepanich  
Vice President - Human Resources  
& Corporate Communication

**06** Siam Dowmanee  
Vice President - Process  
& Technology Innovation





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**07** **Unnop Tungkananukulchai**  
Vice President - Regulatory Affairs

**09** **Pothong Pipatpaiboon**  
Vice President - Maintenance

**11** **Akarapol Prucksuwan**  
Senior Manager - Commercial

**08** **Manoch Jaroonvuthitham**  
Vice President - Production

**10** **Woratip Rerkpiboon**  
Vice President - Finance,  
Accounting & IT

**12** **Surin Tanticharoenkiat**  
Vice President - Internal Audit

## 040 Audit Committee's Statement

### Dear Shareholders,

The Audit Committee comprises three independent directors, Mr. Vinai Vamvanij as Chairman, Mr. Aswin Kongsiri, and Mr. Paron Israsena. The Audit Committee performed its duties as assigned by the Board of Directors in accordance with the Audit Committee Charter as well as proposing the appointment of external auditors for the year 2013.

In 2012, the Audit Committee has met 4 times with the external auditor, the internal auditor and the management to review the consolidated and company financial statements which were prepared in accordance with the Thai Financial Reporting Standards (TFRS) and in compliance with the International Financial Reporting Standards (IFRS) to ensure conformity with laws, the regulations of SEC, SET and with the generally accepted accounting principles of Thailand before submission to the Board. Additional meetings were held with the external auditor without management so as to independently discuss the information of financial statement and of any potential fraudulent action.

The Audit Committee has discussed with the internal auditor and the management to assess the Company's internal control and risk management. The Audit Committee also investigated alleged fraudulent case in accordance with the whistle-blower procedures, and applied its findings as case study to improve operative guidelines to prevent future occurrence. In all respects, the Audit Committee is of the opinion that the Company's operations have been appropriate and has found no significant weaknesses in its conduct of business. In addition the Audit Committee has also overseen the issue of connected party transaction to prevent any conflict of interest that might arise from such transaction.

The Audit Committee has recommended to the Board of Directors to propose to the shareholders to appoint Mr.Chanchai Chaiprasit Certified Public Accountant (Thailand) No. 3760 and/or Mrs. Anutai Poomsurakul Certified Public Accountant (Thailand) No. 3873 and/or Mr. Pisit Thangtanagul Certified Public Accountant (Thailand) No. 4095 of PricewaterhouseCoopers ABAS Limited to conduct the audit of financial statements for the Company and its subsidiaries for the year 2013.



**(Vinai Vamvanij)**

Chairman of the Audit Committee

March 12, 2013

# Financial Statements

## Auditor's Report

### To the Shareholders and the Board of Directors of Padaeng Industry Public Company Limited

I have audited the accompanying consolidated and company financial statements of Padaeng Industry Public Company Limited and its subsidiaries and of Padaeng Industry Public Company Limited, which comprise the consolidated and company statements of financial position as of December 31, 2012, and the related consolidated and company statements of comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and a summary of significant accounting policies and other notes.

#### Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

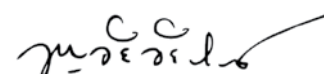
My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Thai Standards on Auditing. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

#### Opinion

In my opinion, the consolidated and company financial statements referred to above present fairly, in all material respects, the consolidated and company financial position of Padaeng Industry Public Company Limited and its subsidiaries and of Padaeng Industry Public Company Limited as of December 31, 2012, and its consolidated and company results of operations and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards.



**Chanchai Chaiprasit**

Certified Public Accountant (Thailand) No. 3760

PricewaterhouseCoopers ABAS Ltd.

Bangkok

February 26, 2013



# Statements of Financial Position

As of December 31, 2012 and 2011

		Consolidated		Company	
	Notes	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Assets					
Current assets					
Cash and cash equivalents	6	1,026,571,357	714,174,693	879,628,792	567,402,283
Trade accounts receivable-net	7	285,744,367	311,050,406	284,329,948	309,947,290
Inventories-net	8	1,985,869,985	3,130,443,958	1,985,869,985	3,130,443,958
Value added tax receivables		131,228,104	134,266,627	130,345,974	133,752,866
Other receivables-related parties-net	24 (iv)	-	-	384,092	35,661,276
Income tax receivable		45,533,996	45,533,996	45,533,996	45,533,996
Other current assets	9	28,300,381	25,672,285	26,631,023	23,991,099
Total current assets		3,503,248,190	4,361,141,965	3,352,723,810	4,246,732,768
Non-current assets					
Advances to related parties-net	24 (v)	-	-	-	75,001,662
Investments in subsidiaries-net	24 (i)	-	-	225,650,772	233,252,023
Investments in jointly controlled entity	24 (i)	69,939,097	94,192,819	236,249,800	236,249,800
Long-term loans to related party	24 (i)	105,000,000	105,000,000	105,000,000	105,000,000
Property, plant and equipment-net	10	1,438,444,365	1,333,356,752	1,439,979,785	1,334,567,520
Exploration and acquisition costs	11	949,217,141	1,200,903,801	30,236,315	120,924,963
Other non-current assets					
- deferred environmental rehabilitation expenses-net	12 (i)	23,820,625	25,246,380	23,820,625	25,246,380
- deferred environmental risk assurance expenses-net	12 (ii)	16,359,563	19,205,548	16,359,563	19,205,548
- others	12 (iii)	8,364,206	9,199,310	8,113,034	8,800,478
Total non-current assets		2,611,144,997	2,787,104,610	2,085,409,894	2,158,248,374
Total assets		6,114,393,187	7,148,246,575	5,438,133,704	6,404,981,142

Director

  
(Francis Vanbellen)

		Consolidated		Company	
	Notes	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Liabilities and shareholders' equity					
Current liabilities					
Short-term loans from financial institutions	13	811,988,641	725,896,310	811,988,641	725,896,310
Trade accounts payable		301,380,312	671,835,283	299,598,373	669,185,035
Accrued electricity expenses		202,261,631	241,452,376	202,261,631	241,452,376
Other payables-related party	24 (vi)	-	-	482,287	527,684
Income tax payable		530,581	718,294	-	-
Other current liabilities	17	132,594,648	159,433,533	132,210,762	152,363,873
Total current liabilities		1,448,755,813	1,799,335,796	1,446,541,694	1,789,425,278
Non-current liabilities					
Long-term loan from other party	24 (viii)	494,322,650	486,145,263	-	-
Accrued interest expenses-other party	24 (viii)	69,141,292	69,141,292	-	-
Provisions for restoration and rehabilitation expenses	15	104,268,637	96,320,858	104,268,637	96,320,858
Employee benefit obligations	16	128,057,175	118,147,530	126,313,275	116,826,930
Total non-current liabilities		795,789,754	769,754,943	230,581,912	213,147,788
Total liabilities		2,244,545,567	2,569,090,739	1,677,123,606	2,002,573,066

The notes to the consolidated and company financial statements are an integral part of these financial statements.

	Notes	Consolidated		Company	
		2012 Baht	2011 Baht	2012 Baht	2011 Baht
<b>Shareholders' equity</b>					
Share capital					
Authorised share capital 226,000,000					
ordinary shares of Baht 10 each		<u>2,260,000,000</u>	<u>2,260,000,000</u>	<u>2,260,000,000</u>	<u>2,260,000,000</u>
Issued and paid-up share capital					
226,000,000 ordinary shares of					
Baht 10 each, fully paid	19	2,260,000,000	2,260,000,000	2,260,000,000	2,260,000,000
Premium on share capital	19	602,413,600	602,413,600	602,413,600	602,413,600
Retained earnings					
Appropriated legal reserve	20	226,000,000	226,000,000	226,000,000	226,000,000
Unappropriated		<u>572,332,479</u>	<u>1,275,332,832</u>	<u>672,596,498</u>	<u>1,313,994,476</u>
<b>Total equity attributable to owner of the parent company</b>		<u>3,660,746,079</u>	<u>4,363,746,432</u>	<u>3,761,010,098</u>	<u>4,402,408,076</u>
Non-controlling interests		<u>209,101,541</u>	<u>215,409,404</u>	<u>-</u>	<u>-</u>
<b>Total shareholders' equity</b>		<u>3,869,847,620</u>	<u>4,579,155,836</u>	<u>3,761,010,098</u>	<u>4,402,408,076</u>
<b>Total liabilities and shareholders' equity</b>		<u>6,114,393,187</u>	<u>7,148,246,575</u>	<u>5,438,133,704</u>	<u>6,404,981,142</u>

The notes to the consolidated and company financial statements are an integral part of these financial statements.



# Statements of Comprehensive Income

As of December 31, 2012 and 2011

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	Notes	Consolidated		Company	
		2012 Baht	2011 Baht	2012 Baht	2011 Baht
Sales and services		7,601,743,541	7,323,125,840	7,583,527,944	7,308,928,730
Cost of sales and services		(7,616,711,626)	(6,954,392,129)	(7,604,320,264)	(6,945,307,698)
<b>Gross (loss) profit</b>		(14,968,085)	368,733,711	(20,792,320)	363,621,032
Other operating income		29,461,446	18,279,930	30,332,617	19,817,564
Gain (loss) on exchange rate		47,931,196	(22,946,808)	44,315,707	(22,446,001)
Gain on sale of fixed assets	10	4,444,003	108,631,800	4,444,003	108,631,800
<b>Profit before expenses</b>		66,868,560	472,698,633	58,300,007	469,624,395
Selling expenses		(69,753,845)	(63,221,931)	(69,753,845)	(63,221,931)
Administrative expenses		(536,855,502)	(357,775,645)	(485,335,973)	(329,181,142)
<b>Total expenses</b>		(606,609,347)	(420,997,576)	(555,089,818)	(392,403,073)
<b>Operating (loss) profit</b>		(539,740,787)	51,701,057	(496,789,811)	77,221,322
Share of loss of investment in jointly controlled entity on equity method	24 (i)	(24,253,722)	(11,078,671)	-	-
<b>(Loss) profit before finance costs and corporate income tax</b>		(563,994,509)	40,622,386	(496,789,811)	77,221,322
Finance costs		(13,011,641)	(9,357,515)	(13,011,641)	(9,357,515)
<b>(Loss) profit before corporate income tax</b>		(577,006,150)	31,264,871	(509,801,452)	67,863,807
Corporate income tax		(705,540)	(27,066,795)	-	(26,183,109)
<b>Net (loss) profit for the year</b>		(577,711,690)	4,198,076	(509,801,452)	41,680,698
Actuarial loss on defined benefit plan	16	(18,600,441)	-	(18,600,441)	-
<b>Total comprehensive (expense) income for the year</b>		(596,312,131)	4,198,076	(528,401,893)	41,680,698
<b>(Loss) profit attributable to:</b>					
Owners of the parent		(571,403,827)	4,275,506	(509,801,452)	41,680,698
Non-controlling interests		(6,307,863)	(77,430)	-	-
		(577,711,690)	4,198,076	(509,801,452)	41,680,698
<b>Total comprehensive (expense) income attributable to:</b>					
Owners of the parent		(590,004,268)	4,275,506	(528,401,893)	41,680,698
Non-controlling interests		(6,307,863)	(77,430)	-	-
		(596,312,131)	4,198,076	(528,401,893)	41,680,698
<b>(Loss) earnings per share</b>					
Basic (loss) earnings per share	22	(2.53)	0.02	(2.26)	0.18

The notes to the consolidated and company financial statements are an integral part of these financial statements.

# Statements of Changes in Shareholders' Equity

For the year ended December 31, 2012 and 2011

Consolidated							
Notes	Attributable to owners of the parent						
	Issued an paid-up share capital Baht	Premium on share capital Baht	Retained earnings		Total owners of the parent Baht	Non-controlling interests Baht	Total shareholders' equity Baht
			Appropriated legal reserve Baht	Unappropriated Baht			
Opening balance as of January 1, 2012	2,260,000,000	602,413,600	226,000,000	1,275,332,832	4,363,746,432	215,409,404	4,579,155,836
Total comprehensive expense	-	-	-	(590,004,268)	(590,004,268)	(6,307,863)	(596,312,131)
Dividends paid	23	-	-	(112,996,085)	(112,996,085)	-	(112,996,085)
Closing balance as of December 31, 2012	2,260,000,000	602,413,600	226,000,000	572,332,479	3,660,746,079	209,101,541	3,869,847,620
Opening balance as of January 1, 2011	2,260,000,000	602,413,600	226,000,000	1,562,588,257	4,651,001,857	215,486,834	4,866,488,691
Total comprehensive income	-	-	-	4,275,506	4,275,506	(77,430)	4,198,076
Dividends paid	23	-	-	(291,530,931)	(291,530,931)	-	(291,530,931)
Closing balance as of December 31, 2011	2,260,000,000	602,413,600	226,000,000	1,275,332,832	4,363,746,432	215,409,404	4,579,155,836

Company					
Notes	Issued an paid-up share capital Baht	Premium on share capital Baht	Retained earnings		Total shareholders' equity Baht
			Appropriated legal reserve Baht	Unappropriated Baht	
Opening balance as of January 1, 2012	2,260,000,000	602,413,600	226,000,000	1,313,994,476	4,402,408,076
Total comprehensive expense	-	-	-	(528,401,893)	(528,401,893)
Dividends paid	23	-	-	(112,996,085)	(112,996,085)
Closing balance as of December 31, 2012	2,260,000,000	602,413,600	226,000,000	672,596,498	3,761,010,098
Opening balance as of January 1, 2011	2,260,000,000	602,413,600	226,000,000	1,563,844,709	4,652,258,309
Total comprehensive income	-	-	-	41,680,698	41,680,698
Dividends paid	23	-	-	(291,530,931)	(291,530,931)
Closing balance as of December 31, 2011	2,260,000,000	602,413,600	226,000,000	1,313,994,476	4,402,408,076

The notes to the consolidated and company financial statements are an integral part of these financial statements.

# Statements of Cash Flows

For the year ended December 31, 2012 and 2011

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	Notes	Consolidated		Company	
		2012 Baht	2011 Baht	2012 Baht	2011 Baht
<b>Cash flows from operating activities</b>					
(Loss) profit before tax		(577,006,150)	31,264,871	(509,801,452)	67,863,807
Adjustments for:					
Depreciation expenses	10	256,631,413	274,609,178	256,177,009	273,844,706
Other non-current assets amortisation expenses		43,486,913	37,776,478	26,761,734	27,608,023
Interest expenses		13,011,641	9,357,515	13,011,641	9,357,515
Interest income		(20,991,839)	(12,448,162)	(17,299,510)	(8,645,322)
Share of loss from jointly controlled entity	24 (i)	24,253,722	11,078,671	-	-
Allowance for doubtful debt		-	-	96,572,202	67,838
Allowance of slow-moving and obsolete stocks (reversal)		1,819,593	(1,720,133)	1,819,593	(1,720,133)
Provision for employee benefits		13,566,573	21,484,321	13,143,273	20,163,721
Provision for annual leave		600,000	600,000	600,000	600,000
Gain on disposal of property, plant and equipment		(4,444,031)	(108,631,800)	(4,444,031)	(108,631,800)
(Reversal)/Provision for asset impairment	10	(91,558)	9,081,373	(91,558)	9,081,373
Fixed assets written-off	10	-	14,550	-	14,500
Exploration costs written-down	11	226,373,554	580,394	76,039,308	580,394
Diminution of investment		-	-	7,601,251	-
Provisions for restoration expense (accretion expense)	15	22,776,618	23,509,277	22,776,618	23,509,277
Unrealised (gain) loss on foreign currency exchange		(15,183,857)	18,200,820	(15,183,857)	18,200,820
<b>Changes in operating assets and liabilities</b>					
Trade accounts receivable-other parties		25,401,582	65,125,497	25,712,884	65,011,512
Inventories		1,142,754,380	84,085,008	1,142,754,380	84,085,008
Value added tax receivables		3,038,523	15,247,227	3,406,892	15,298,443
Other receivables-related parties		-	69,524	35,266,956	(15,471,549)
Prepayment to a related party		-	-	(21,560,312)	(33,948,746)
Other current assets		(4,610,330)	(447,865)	(4,894,831)	(73,408)
Other non-current assets					
- deferred environmental rehabilitation expenses		(4,730,968)	(9,671,221)	(4,730,968)	(9,671,221)
- deferred environmental risk assurance expenses		(1,296,565)	(1,642,646)	(1,296,565)	(1,642,646)
- others		(968,923)	(2,786,582)	(1,028,922)	(2,721,050)
Trade accounts payable-other parties		(370,226,571)	326,208,609	(369,358,261)	325,407,639
Accrued electricity expenses		(39,190,745)	140,669,072	(39,190,745)	140,669,072
Royalty payable		(1,790,000)	810,000	(1,790,000)	810,000
Other payable-related parties		-	-	(45,396)	35,944
Other current liabilities		(20,464,188)	(31,505,687)	(13,515,804)	(31,613,966)
Provisions for restoration expenses utilised	15	(14,828,839)	(19,332,541)	(14,828,839)	(19,332,541)
Provisions for employee benefits expenses utilised	16	(22,257,369)	(26,031,030)	(22,257,369)	(26,031,030)
<b>Cash generated from operation</b>		<b>675,632,579</b>	<b>855,554,718</b>	<b>680,325,321</b>	<b>822,706,180</b>
Interest paid		(13,214,298)	(8,561,587)	(13,214,298)	(8,561,587)
Tax paid		(1,039,924)	(111,882,379)	(147,749)	(112,561,455)
<b>Net cash provided by operating activities</b>		<b>661,378,357</b>	<b>735,110,752</b>	<b>666,963,274</b>	<b>701,583,138</b>

The notes to the consolidated and company financial statements are an integral part of these financial statements.



## Statements of Cash Flows

For the years ended December 31, 2012 and 2011

	Notes	Consolidated		Company	
		2012 Baht	2011 Baht	2012 Baht	2011 Baht
<b>Cash flows from investing activities</b>					
Interest received		20,948,828	12,325,914	17,267,642	8,490,143
Cash invested in a subsidiary		-	-	-	(246,700)
Long-term loan to jointly controlled entity		-	(105,000,000)	-	(105,000,000)
Cash paid for purchase of property, plant and equipment	10	(362,050,021)	(179,617,067)	(361,920,270)	(178,983,703)
Cash received from sales of property, plant and equipment		4,866,586	167,906,039	4,866,584	167,906,039
Cash paid for exploration activities	11	(6,070,508)	(92,686,285)	(96,756)	(6,641,998)
<b>Net cash used in investing activities</b>		<u>(342,305,115)</u>	<u>(197,071,399)</u>	<u>(339,882,800)</u>	<u>(114,476,219)</u>
<b>Cash flows from financing activities</b>					
Proceeds (payment) on short-term loans from financial institutions		96,623,728	(16,351,219)	96,623,728	(16,351,219)
Proceeds from long-term loan from other party	24(viii)	8,177,387	21,713,402	-	-
Dividends payment		(113,207,933)	(291,292,366)	(113,207,933)	(291,292,366)
<b>Net cash used in financing activities</b>		<u>(8,406,818)</u>	<u>(285,930,183)</u>	<u>(16,584,205)</u>	<u>(307,643,585)</u>
Effects from changes in exchange rate for cash and cash equivalents		1,730,240	6,346,208	1,730,240	6,346,208
<b>Net increase in cash and cash equivalents</b>		312,396,664	258,455,378	312,226,509	285,809,542
Cash and cash equivalents at beginning of the year		714,174,693	455,719,315	567,402,283	281,592,741
Cash and cash equivalents at end of the year		<u>1,026,571,357</u>	<u>714,174,693</u>	<u>879,628,792</u>	<u>567,402,283</u>

The notes to the consolidated and company financial statements are an integral part of these financial statements.

# Notes to the Consolidated and Company Financial Statements

For the years ended December 31, 2012 and 2011

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## 1. General information

Padaeng Industry Public Company Limited (the “Company”) was established on 10 April 1981 and has been listed on the Stock Exchange of Thailand since 21 July 1987.

The Company’s registered office is at CTI Tower, 26<sup>th</sup>-27<sup>th</sup> floor, 191/18-25 Rachadaphisek Road, Khlong Toei district, Bangkok. The Company operates a zinc mine and a zinc smelter located in the Tak province and a roaster plant located in the Rayong province.

The principal business operations of the Company, its subsidiaries and a jointly controlled entity (the “Group”), are summarised as follows:

<b>Company</b> Padaeng Industry Public Co., Ltd.	<b>Principal activities</b> Mining and smelting zinc, the main products are zinc and zinc alloys
<b>Subsidiaries</b> Padaeng Properties Co., Ltd. Puthep Co., Ltd. Padaeng Industry (Laos) Co., Ltd. Padaeng International Mining Co., Ltd. South East Asia Metals Co., Ltd.  Ton Sangkasi Pte Ltd.	<b>Principal activities</b> Providing property services Copper exploration Zinc exploration and mining in Laos Minerals exploration in Vietnam (non operating) Trading of various base metals and their by-products Minerals exploration, prospecting, mining and processing of base metals
<b>Jointly controlled entity</b> Maesod Clean Energy Co., Ltd.	<b>Principal activities</b> Production and sales of ethanol and electricity

These consolidated and company financial statements have been authorised for issue by the Board of Directors at its meeting on February 19, 2013.

## 2. Significant accounting policies

The principal accounting policies applied in the preparation of these consolidated and company financial statements are set out below:

### 2.1 Basis of preparation

The consolidated and company financial statements have been prepared in accordance with Thai generally accepted accounting principles under the Accounting Act B.E. 2543, being those Thai Financial Reporting Standards issued under the Accounting Profession Act B.E. 2547, and the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act.

The consolidated and company financial statements have been prepared under the historical cost convention, except for the accounting of environmental restoration and rehabilitation expenses in Note 2.11, employee benefits as disclosed in Note 2.13 and financial instruments as disclosed in Note 2.17.

The preparation of financial statements in conformity with Thai generally accepted accounting principles

requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

An English version of the consolidated and company statutory financial statements has been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

## **2.2 New accounting standards, new financial reporting standards, new interpretation, amendments to accounting standards**

a) New accounting standards, new financial reporting standard, new interpretations and amendments to accounting standard that are not yet effective and have not been early adopted by the Group:

Effective for the periods beginning on or after January 1, 2013

TAS 12	Income taxes
TAS 21 (Revised 2009)	The effects of changes in foreign exchange rates
TFRS 8	Operating segments
TSIC 21	Income taxes - recovery of revalued non-depreciable assets
TSIC 25	Income taxes - changes in the tax status of an entity or its shareholders

The Group will apply these new accounting standards, new financial reporting standards, new interpretations and amendments to accounting standard (collectively "the accounting standards") from January 1, 2013. Currently, the Group's management are assessing the impact of these standards to financial statements being presented.

TAS 12 deals only with taxes on income, comprising current and deferred tax. Current tax expense for a period is based on the taxable and deductible amounts that will be shown on the tax return for the current year. Current tax assets and liabilities for the current and prior periods are measured at the amount expected to be paid to (recovered from) the taxation authorities, using the tax rates and tax laws that have been enacted or substantively enacted by the statement of financial position date. Deferred tax accounting is based on the temporary differences between the tax base of an asset or liability and its carrying amount in the financial statements.

TAS 21 (Revised 2009) required an entity to determine its functional currency which is a currency of the primary economic environment in which the entity operates. Foreign currency transactions are required to be translated into the functional currency using the exchange rates prevailing at the dates of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from translation at year-end exchange rate of monetary items denominated in foreign currency are recognised in profit or loss. In addition, the results and financial position of all the group entities that have a functional currency difference from the presentation currency are translated in the presentation currency as following; (a) assets and liabilities are translated at the closing rate at the date of that statement of financial position (b) income and expenses are translated at exchange rate at the date of



the transactions and (c) all resulting exchange differences are recognised in other comprehensive income. The Group will apply this standard from January 1, 2013. The application of the standard will be accounted for retrospectively.

TFRS 8 requires a management approach under which segment information is presented on the same basis that used for internal reporting purpose as provided to the chief operating decision makers. The Company expects that this new standard will have an impact on disclosure.

TSIC 21 clarifies that a deferred tax liability or asset that arises from the revaluation of a non-depreciable asset in accordance with TAS 16 shall be measured on the basis of the tax consequences that would follow from recovery of the carrying amount of that asset through sale, regardless of the basis of measuring the carrying amount of that asset.

TSIC 25 clarifies that a change in the tax status of an entity or its shareholders does not give rise to increases or decreases in amounts recognised outside profit or loss. The current and deferred tax consequences of a change in tax status shall be included in profit or loss for the period, unless those consequences related to transactions and events that result, in the same or different period, in a direct credit or charge to the recognised amount of equity or in amounts recognised in other comprehensive income. Those tax consequences shall be charged directly to equity or other comprehensive income, respectively.

## **2.3 Group accounting - investments in subsidiaries and interests in jointly controlled entities**

### **(1) Subsidiaries**

Subsidiaries are all entities (including special purpose entities) over which the Company has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible, including potential voting rights held by another entity, are considered when assessing whether the Group controls another entity. Subsidiaries are consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date that control ceases.

In the company financial statements, investments in subsidiaries are reported by using the cost method.

A list of the Group's subsidiaries is given in Note 24 (i).

### **(2) Jointly controlled entities**

In the consolidated financial statements, investments in jointly controlled entities are reported using the equity method of accounting.

In the company financial statements, interests in jointly controlled entities are reported using the cost method.

The Company's principal jointly controlled entity is listed in Note 24 (i).

## **2.4 General investment**

Investments other than investments in subsidiaries and associates of the Group are classified into general investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

General investments are non-marketable securities and carried at cost less impairment.

Purchases and sales of investments are recognised on the trade date, which is the date that the Group commits to purchase or sell the investments. Cost of investment includes transaction costs.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is charged to the statements of comprehensive income.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the statements of comprehensive income.

## **2.5 Foreign currency transactions**

Items included in the financial statements of each entity in the Group are measured using Thai Baht. The consolidated financial statements are presented in Thai Baht.

Foreign currency transactions are translated into Thai Baht using the exchange rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currency are translated into Thai Baht at the exchange rate prevailing at the statement of financial position date. Gains and losses resulting from the settlement of foreign currency transactions and from the translation of monetary assets and liabilities denominated in foreign currencies, are recognised in the statements of comprehensive income.

The statements of comprehensive income and cash flows of foreign entities are translated into the Group's reporting currency at the average exchange rates for the year and statements of financial position are translated at the exchange rates ruling on the statements of financial position date.

## **2.6 Cash and cash equivalents**

Cash and cash equivalents comprise cash on hand, deposits held at call with banks or other short-term highly liquid investments with original maturities of three months or less. In the consolidated and Company statement of financial position, bank overdrafts are shown within short-term loans from financial institutions in current liabilities.

## **2.7 Trade accounts receivables**

Trade accounts receivables are carried at the original invoice amount and subsequently measured at the remaining amount less any allowance for doubtful receivables based on a review of all outstanding amounts at the year end. The amount of the allowance is the difference between the carrying amount of the receivable and the amount expected to be collected. Bad debts are written off during the year in which they are identified and recognised in the statements of comprehensive income within administrative expenses.

## 2.8 Inventories

Inventories are stated at the lower of cost or net realisable value. Cost is determined by the weighted average method. The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the inventory, such as import duties and transportation charges, less all attributable discounts, allowances or rebates. The cost of finished goods and work in progress comprises raw materials (zinc sulphide, concentrates and zinc silicates), direct labour, other direct costs and related production overheads (based on normal operating capacity), but excludes borrowing costs. Net realisable value is the estimate of the selling price in the ordinary course of business, less the costs of completion and selling expenses. Where net realisable value is less than cost, an allowance for the diminution in value of inventories has been provided.

Spare parts and consumables are valued at the weighted average cost basis. Allowance is made, where necessary, for obsolete, slow moving and defective inventories and are based on a review of all outstanding amounts at the year-end.

## 2.9 Property, plant and equipment

Property, plant and equipment are recorded at cost. Cost is measured by the cash or cash equivalent price of obtaining the asset and bringing it to the location and condition necessary for its intended use. In the case of self-constructed assets, the cost of construction consists of materials, direct labour and other expenses attributable to the construction which are allocated to the assets on a systematic basis. Property, plant and equipment, except land, are presented in statement of financial position at cost less accumulated depreciation.

Depreciation is calculated on the straight line basis to write off the cost or the revalued amount of each asset, except for land which is considered to have an indefinite life, to its residual value over the estimated useful life as follows:

	<u>Years</u>
Land improvements	5-20
Buildings	20-25
Machinery and heavy equipment	8-20
Equipment, furniture and fixtures	3-5
Vehicles	5

Residue ponds are amortised on units of production basis using the capacity volume of the residue ponds.

Residual value and the estimated useful life of the assets are reviewed, and adjusted if appropriate, at the end of each reporting period.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to a recoverable amount.



Repairs and maintenance are charged to the statements of comprehensive income during the financial period in which they are incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Group. Major renovations are depreciated over the remaining useful life of the related asset.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount and are recognised in the statements of comprehensive income.

## **2.10 Exploration and acquisition costs**

Exploration costs are accumulated separately for each area of interest and accounted using the successful efforts basis of accounting for such costs.

Under this basis, accumulated costs of exploration are capitalised and carried forward on statement of financial position where one or both of the following conditions are met:

- costs are expected to be recouped through successful development and exploitation of each area of interest or by sale of the area of interest; and/or
- exploration activities in the area of interest have not yet reached a stage that permits a reasonable assessment of the existence of economically recoverable reserves and exploration activities are continuing in the area of interest.

Expenditures which no longer satisfy the above policy are written-off or a provision is recognised for such expenditure where management is of the opinion that the carried forward net cost may not be recoverable.

Upon commencement of development and production, these exploration costs are amortised by using the straight line basis over the period that they are expected to provide economic benefits. Mining concession fees and acquisition costs have an estimated useful life of 5 to 16 years and are amortised accordingly or over the life of the mine, whichever is shorter.

## **2.11 Environmental restoration and rehabilitation expenses**

Under the terms of the Group's mining and production licenses, it is required to restore mining and production areas to their original conditions. The Group has recognized environmental rehabilitation and risk assurance provisions in respect to these costs as follows.

Prior to January 1, 2011, the Group recognized estimated environmental restoration costs over the life of mine properties and the useful life of restoration ponds used to accumulate residual waste from the operation of the Tak Zinc smelting facility.

Beginning January 1, 2011, the Group has adopted an accounting policy in accordance with TAS 16 to account for environmental restoration and rehabilitation costs. Under the policy, the estimated costs of decommissioning mine properties and residual ponds and removing any related assets and site restoration are included in the cost of restoration assets as at the date the obligation first arises and to the extent that it is first recognised as a provision. This restoration asset is subsequently amortised on a unit-of production basis.

The corresponding restoration and rehabilitation provision, of an amount equivalent to the restoration asset created, is reviewed at the end of each reporting period. The provision is measured at the best

estimate of the present value amount required to settle the present obligation at the end of the reporting period based on current legal and other requirements and technology, discounted where material using the weighted average cost of capital at the statement of financial position date with terms to maturity that match, as closely as possible, the estimated future cash outflows.

Where there is a change in the expected restoration, rehabilitation or decommissioning costs, an adjustment is recorded against the carrying value of the provision and any related restoration asset, and the effects are recognised in the statement of comprehensive income on a prospective basis over the remaining life of the operation. Accretion expenses recognised due to unwinding of the effect of discounting on the restoration provision is included within administrative expenses in the statement of comprehensive income.

## **2.12 Impairment of assets**

Assets that have an infinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Assets and intangible assets that have definite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount which is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

## **2.13 Employee benefits**

### Post-employee benefits

The Group has both defined benefit and defined contribution plans. The Group operates a provident fund that is a defined contribution plan. The assets of which are held in a separate trust fund. The provident fund is funded by payments from employees and by the Group at a certain percentage of the employee basic salary. Contributions to the provident fund are charged to the statements of comprehensive income in the year to which they relate.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period with the adjustments for unrecognised past-service costs. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

### Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

## **2.14 Provisions**

Provisions, excluding the provisions for employee benefits, are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain.

## **2.15 Revenue recognition**

Revenue comprises the fair value of the consideration received or receivable for the sale of goods net of output tax, rebates and discounts, and after eliminating sales within the Group for the consolidated financial statements. Revenue from sales of goods is recognised when significant risks and rewards of ownership of the goods are transferred to the buyer which is at the time when the goods are delivered to the customer or as contractually agreed.

Interest income is recognised on a time proportion basis, taking into account the outstanding principal and the effective rate over the period to maturity, when it is determined that such income will accrue to the Group. Dividends are recognised when the right to receive payment is established.

## **2.16 Dividends**

Dividends are recorded in the consolidated and company's financial statements in the period in which they are approved by the shareholders.

## **2.17 Financial instruments**

Financial assets and liabilities carried on the statement of financial position include cash and cash equivalents, trade accounts receivable, related parties receivables and payables, bank overdraft, trade accounts payable, accrued expenses and loans.

The Group enters into derivative financial instruments that reduce its exposure to fluctuations in foreign currency exchange rates with respect to recognised foreign currency assets or liabilities. The derivative instruments comprise forward foreign exchange contracts, protecting the Group from movements of foreign currency exchange rates by establishing the rate at which a foreign currency asset or liability will be realised or settled. They are measured at fair value and any related gains or losses are recognised in the statement of comprehensive income. The fair values of the contracts are based on closing exchange quotations.



The Group also enters into forward derivative contracts to protect itself from movements in the zinc metal price changes related to production, and contracted purchases of concentrate and metal and sales of finished products. Those instruments comprise forward contracts for the sale and purchase of zinc metal. Such derivatives are not recognised on statement of financial position at inception, since they relate to future transactions (or underlying) which are not yet reflected in the financial statements. Gains and losses on those derivative contracts are recognised in the financial statements upon settlement of the transactions; their valuation at period end is nevertheless mentioned in Note 25.

### **3. Critical accounting estimates, assumptions and judgements**

Accounting estimates, assumptions, and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

#### **3.1 Environmental restoration and rehabilitation costs and environmental risk assurance costs**

Deferred environmental restoration and rehabilitation expenses and provision for environmental restoration and rehabilitation expenses are recognised in the statement of financial position using the present value of the management's best estimation of future cash flows to be required to settle the expenditures for rehabilitation activities.

Deferred environmental risk assurance expenses and provision for environmental risk assurance expenses are recognised in the statement of financial position using the present value of the installments plan.

These deferred expenses are amortised by straight-line method over the useful life of mining area. The provisions are reviewed regularly and any changes in provisions are recognised as administrative expenses.

Significant judgment is required in determining the environmental restoration and rehabilitation expenses as there are many transactions and factors that will affect the ultimate liability payable to rehabilitate the mine site. Factors that will affect this liability includes future development, changes in technology, commodity price changes and changes in interest rates.

#### **3.2 Exploration and evaluation expenditure**

Exploration and evaluation expenditure for each area of interest is carried forward as an asset provided certain conditions are met. Exploration and evaluation assets are assessed for impairment when facts and circumstances suggest that the carrying amount of an exploration and evaluation asset may exceed its recoverable amount. These calculations and reviews require the use of assumptions and judgments.

#### **3.3 Property, plant and equipment and intangible assets**

Management determines the carrying value of property, plant, and equipment and intangible assets based on estimates, assumptions, and judgments in respect of remaining useful lives and residual values of these assets. These estimates, assumptions, and judgments reflect both historical experience and expectations regarding future operations, utilisation, and performance.

### 3.4 Impairment of assets

Assets and intangible assets with a definite useful life are reviewed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Factors taken into consideration in reaching such a decision include the economic viability of the asset itself and, where it is a component of a larger economic unit, the viability of that unit itself.

Future cash flows expected to be generated by the assets are projected, taking into account market conditions and the expected useful lives of the assets and using an appropriate discount rate.

## 4. Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

## 5. Segment information

The Group produces a single product in Thailand for both domestic and export markets, using the same assets. The Group does not present segment information as it considers its business operations to be in one segment. Sales of the Group comprised mainly local sales and export to neighbouring countries present no material difference in risks and rewards to the Group.

## 6. Cash and cash equivalents

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Cash on hand	610,000	640,000	480,000	480,000
Deposits held at call with banks	282,050,655	320,027,550	260,107,576	297,266,925
Cash and bank balances	282,660,655	320,667,550	260,587,576	297,746,925
Bill of exchange	743,910,702	393,507,143	619,041,216	269,655,358
Cash and cash equivalents	1,026,571,357	714,174,693	879,628,792	567,402,283

The average interest rates on deposits and short-term investments are in the range of 0.10% - 3.11% per annum (2011 : 0.10% - 3.15% per annum).

## 7. Trade accounts receivable-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Trade accounts receivable	285,744,367	311,050,406	284,329,948	309,947,290
<u>Less</u> Allowance for doubtful accounts	-	-	-	-
Trade accounts receivable-net	285,744,367	311,050,406	284,329,948	309,947,290

Outstanding trade accounts receivable as of December 31, 2012 and 2011 can be analysed as follows:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Up to 3 months	285,744,367	311,050,406	284,329,948	309,947,290
Over 3 months	-	-	-	-
	285,744,367	311,050,406	284,329,948	309,947,290
<u>Less</u> Allowance for doubtful accounts	-	-	-	-
	285,744,367	311,050,406	284,329,948	309,947,290

## 8. Inventories-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Raw materials	938,352,824	865,400,388	938,352,824	865,400,388
Spare parts and consumables	159,152,503	143,863,284	159,152,503	143,863,284
Goods in transit	122,281,677	500,195,175	122,281,677	500,195,175
Work in process	522,657,418	587,076,898	522,657,418	587,076,898
Finished goods	283,793,674	1,046,571,079	283,793,674	1,046,571,079
	2,026,238,096	3,143,106,824	2,026,238,096	3,143,106,824
<u>Less</u> Allowance for slow moving and obsolete inventories	(40,368,111)	(12,662,866)	(40,368,111)	(12,662,866)
Inventories-net	1,985,869,985	3,130,443,958	1,985,869,985	3,130,443,958

## 9. Other current assets net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Advances to suppliers				
- principal	35,071,032	35,071,032	35,071,032	35,071,032
- interest	11,133,011	11,133,011	11,133,011	11,133,011
Recoverable income taxes	375,307	5,145,500	-	5,032,801
Others	27,925,074	20,526,785	26,631,023	18,958,298
	74,504,424	71,876,328	72,835,066	70,195,142
<u>Less</u> Allowance for doubtful accounts	(46,204,043)	(46,204,043)	(46,204,043)	(46,204,043)
Other current assets, net	28,300,381	25,672,285	26,631,023	23,991,099

## 10. Property, plant and equipment-net

	Consolidated						
	Land and land improvements Baht	Buildings Baht	Machinery and heavy equipment Baht	Equipment, furniture and fixtures Baht	Vehicles Baht	Building and machinery under constructions Baht	Total Baht
<b>At December 31, 2010</b>							
Cost	736,030,615	1,656,087,815	5,135,150,738	451,147,840	234,185,589	7,781,176	8,220,383,773
<u>Less</u> Accumulated depreciation	(334,107,739)	(1,358,015,844)	(4,260,928,194)	(409,962,980)	(187,539,843)	-	(6,550,554,600)
Accumulated provision for impairment	(3,308,744)	(6,306,792)	(161,786,718)	(1,355,898)	(351,998)	-	(173,110,150)
Net book value	398,614,132	291,765,179	712,435,826	39,828,962	46,293,748	7,781,176	1,496,719,023
<b>Year ended December 31, 2011</b>							
Opening balance	398,614,132	291,765,179	712,435,826	39,828,962	46,293,748	7,781,176	1,496,719,023
Additions	525,868	-	3,586,350	19,330,970	-	156,173,879	179,617,067
Transfers	1,406,806	-	89,025,686	6,200,082	11,115,717	(107,748,291)	-
Disposals of property, plant and equipment	(53,809,300)	(5,310,579)	(154,358)	-	-	-	(59,274,237)
Write-off property, plant and equipment	-	-	-	(14,550)	-	-	(14,550)
Depreciation expense	(22,716,665)	(44,445,036)	(176,190,589)	(17,670,588)	(13,586,300)	-	(274,609,178)
Provision for impairment	-	-	(4,029,656)	(5,051,717)	-	-	(9,081,373)
Closing net book value	324,020,841	242,009,564	624,673,259	42,623,159	43,823,165	56,206,764	1,333,356,752



	Consolidated						
	Land and land improvements Baht	Buildings Baht	Machinery and heavy equipment Baht	Equipment, furniture and fixtures Baht	Vehicles Baht	Building and machinery under constructions Baht	Total Baht
<b>At December 31, 2011</b>							
Cost	683,863,489	1,618,662,140	5,223,824,174	476,380,331	237,053,851	56,206,764	8,295,990,749
<u>Less</u> Accumulated depreciation	(356,533,904)	(1,370,345,784)	(4,433,334,541)	(427,349,557)	(192,878,688)	-	(6,780,442,474)
Accumulated provision for impairment	(3,308,744)	(6,306,792)	(165,816,374)	(6,407,615)	(351,998)	-	(182,191,523)
Net book value	324,020,841	242,009,564	624,673,259	42,623,159	43,823,165	56,206,764	1,333,356,752
<b>Year ended December 31, 2012</b>							
Opening balance	324,020,841	242,009,564	624,673,259	42,623,159	43,823,165	56,206,764	1,333,356,752
Additions	7,307,985	-	86,250	805,394	8,778,000	345,072,392	362,050,021
Transfers	10,351,536	17,301,520	172,268,713	4,852,807	8,261,008	(213,035,584)	-
Disposals of property, plant and equipment	-	-	(421,180)	(1,373)	-	-	(422,553)
Depreciation expense	(15,429,158)	(42,265,120)	(170,166,129)	(14,293,518)	(14,477,488)	-	(256,631,413)
Reversal of provision for impairment	-	-	91,558	-	-	-	91,558
Closing net book value	326,251,204	217,045,964	626,532,471	33,986,469	46,384,685	188,243,572	1,438,444,365
<b>At December 31, 2012</b>							
Cost	701,523,011	1,635,963,660	5,393,389,979	477,739,773	236,995,271	188,243,572	8,633,855,266
<u>Less</u> Accumulated depreciation	(371,963,063)	(1,412,610,904)	(4,601,132,692)	(437,345,689)	(190,258,588)	-	(7,013,310,936)
Accumulated provision for impairment	(3,308,744)	(6,306,792)	(165,724,816)	(6,407,615)	(351,998)	-	(182,099,965)
Net book value	326,251,204	217,045,964	626,532,471	33,986,469	46,384,685	188,243,572	1,438,444,365

	Company						
	Land and land improvements Baht	Buildings Baht	Machinery and heavy equipment Baht	Equipment, furniture and fixtures Baht	Vehicles Baht	Building and machinery under constructions Baht	Total Baht
<b>At December 31, 2010</b>							
Cost	739,540,553	1,656,087,815	5,135,150,738	446,278,179	234,165,590	7,781,176	8,219,004,051
<u>Less</u> Accumulated depreciation	(334,107,739)	(1,358,015,844)	(4,260,928,194)	(407,523,151)	(187,520,339)	-	(6,548,095,267)
Accumulated provision for impairment	(3,308,744)	(6,306,792)	(161,786,718)	(1,355,898)	(351,998)	-	(173,110,150)
Net book value	402,124,070	291,765,179	712,435,826	37,399,130	46,293,253	7,781,176	1,497,798,634

	<b>Company</b>						
	<b>Land and land improvements Baht</b>	<b>Buildings Baht</b>	<b>Machinery and heavy equipment Baht</b>	<b>Equipment, furniture and fixtures Baht</b>	<b>Vehicles Baht</b>	<b>Building and machinery under constructions Baht</b>	<b>Total Baht</b>
<b>Year ended December 31, 2011</b>							
Opening balance	402,124,070	291,765,179	712,435,826	37,399,130	46,293,253	7,781,176	1,497,798,634
Additions	525,868	-	3,362,895	18,921,060	-	156,173,880	178,983,703
Transfers	1,406,806	-	89,025,686	6,200,082	11,115,717	(107,748,291)	-
Disposals of property, plant and equipment	(53,809,300)	(5,310,579)	(154,359)	-	-	-	(59,274,238)
Write-off property, plant and equipment	-	-	-	(14,500)	-	-	(14,500)
Depreciation expense	(22,716,665)	(44,445,036)	(176,188,909)	(16,907,796)	(13,586,300)	-	(273,844,706)
Provision for impairment	-	-	(4,029,656)	(5,051,717)	-	-	(9,081,373)
Closing net book value	<u>327,530,779</u>	<u>242,009,564</u>	<u>624,451,483</u>	<u>40,546,259</u>	<u>43,822,670</u>	<u>56,206,765</u>	<u>1,334,567,520</u>
<b>At December 31, 2011</b>							
Cost	687,373,426	1,618,662,140	5,223,600,718	471,100,810	237,033,852	56,206,765	8,293,977,711
<u>Less</u> Accumulated depreciation	(356,533,903)	(1,370,345,784)	(4,433,332,861)	(424,146,936)	(192,859,184)	-	(6,777,218,668)
Accumulated provision for impairment	3,308,744	(6,306,792)	(165,816,374)	(6,407,615)	(351,998)	-	(182,191,523)
Net book value	<u>327,530,779</u>	<u>242,009,564</u>	<u>624,451,483</u>	<u>40,546,259</u>	<u>43,822,670</u>	<u>56,206,765</u>	<u>1,334,567,520</u>
<b>Year ended December 31, 2012</b>							
Opening balance	327,530,779	242,009,564	624,451,483	40,546,259	43,822,670	56,206,765	1,334,567,520
Additions	7,307,984	-	-	761,894	8,778,000	345,072,392	361,920,270
Transfers	10,351,536	17,301,520	172,268,713	4,852,807	8,261,008	(213,035,584)	-
Disposals of property, plant and equipment	-	-	(421,180)	(1,374)	-	-	(422,554)
Depreciation expense	(15,429,157)	(42,265,120)	(170,114,096)	(13,891,148)	(14,477,488)	-	(256,177,009)
Reversal of provision for impairment	-	-	91,558	-	-	-	91,558
Closing net book value	<u>329,761,142</u>	<u>217,045,964</u>	<u>626,276,478</u>	<u>32,268,438</u>	<u>46,384,190</u>	<u>188,243,573</u>	<u>1,439,979,785</u>
<b>At December 31, 2012</b>							
Cost	705,032,946	1,635,963,660	5,393,080,273	472,177,232	236,975,271	188,243,573	8,631,472,955
<u>Less</u> Accumulated depreciation	(371,963,060)	(1,412,610,904)	(4,601,078,979)	(433,501,179)	(190,239,083)	-	(7,009,393,205)
Accumulated provision for impairment	(3,308,744)	(6,306,792)	(165,724,816)	(6,407,615)	(351,998)	-	(182,099,965)
Net book value	<u>329,761,142</u>	<u>217,045,964</u>	<u>626,276,478</u>	<u>32,268,438</u>	<u>46,384,190</u>	<u>188,243,573</u>	<u>1,439,979,785</u>

During the year ended December 31, 2011, the Company disposed certain land and office buildings at the Chiang Mai Province with a total net book value of Baht 59 million. The Company recognised a gain on these sale amounting to Baht 108 million in 2011.

#### Provision for asset impairment

Asset impairment charges represent a write-down in the book value of assets which exceed their estimated recoverable amount based on a review of each asset's fair value less costs to sell and value in use.

Changes in impairment provision movement are shown as follows:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	182,191,523	173,110,150	182,191,523	173,110,150
Provision for impairment	-	9,081,373	-	9,081,373
Reversal from written-off	(91,558)	-	(91,558)	-
At December 31	182,099,965	182,191,523	182,099,965	182,191,523

The provision for impairment for the year end December 31, 2011 related to equipment no longer in use.

## 11. Exploration and acquisition costs

Exploration and acquisition costs as of December 31, 2012 and 2011 comprise:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
<u>Exploration costs</u>				
At January 1	1,101,677,245	1,018,758,270	81,723,668	75,662,064
Expenditure incurred during the year	6,070,508	62,671,655	96,756	6,641,998
Deferred capitalised interest	-	20,827,714	-	-
Provisions for impairment of exploration costs	(182,985,811)	(580,394)	(76,039,308)	(580,394)
At December 31	924,761,942	1,101,677,245	5,781,116	81,723,668

	<b>Consolidated</b>		<b>Company</b>	
	<b>2012 Baht</b>	<b>2011 Baht</b>	<b>2012 Baht</b>	<b>2011 Baht</b>
<u>Mining acquisition costs</u>				
Capitalised deferred cost				
Mining license				
At January 1	60,000,000	60,000,000	60,000,000	60,000,000
<u>Less</u> Accumulated depletion	(60,000,000)	(53,333,376)	(60,000,000)	(53,333,376)
At December 31	-	6,666,624	-	6,666,624
Land use compensation-net	16,088,868	21,119,752	16,088,868	21,119,752
Other capitalised expenditure-net	8,366,331	11,414,919	8,366,331	11,414,919
At December 31	24,455,199	39,201,295	24,455,199	39,201,295
Concession operating right				
At January 1	31,421,298	40,115,682	-	-
<u>Less</u> Amortisation	(8,694,384)	(8,694,384)	-	-
Provisions for impairment of exploration costs	(22,726,914)	-	-	-
At December 31	-	31,421,298	-	-
Other capitalised cost				
At January 1	28,603,963	-	-	-
<u>Add</u> Expenditure incurred during the year	-	30,014,630	-	-
<u>Less</u> Amortisation	(7,943,134)	(1,410,667)	-	-
Provisions for impairment of exploration costs	(20,660,829)	-	-	-
At December 31	-	28,603,963	-	-
Total mining acquisition costs	24,455,199	99,226,556	24,455,199	39,201,295
Total (Note 11 (i-ii))	949,217,141	1,200,903,801	30,236,315	120,924,963



### **i) Exploration costs**

Exploration costs primarily consist of costs incurred by the Company and its subsidiaries, Puthep Co., Ltd. ("Puthep") and Padaeng Industry (Laos) Co., Ltd. ("Padaeng Industry (Laos)"). At the date of these financial statements, certain exploration activities had not established whether economically recoverable resources existed in the area. In accordance with the Company's accounting policy for exploration, such costs will remain capitalized until final determination of whether economically recoverable resource exists at which time they are expensed or capitalized as part of property, plant and equipment.

#### Padaeng Industry Public Company Limited

During 2012 following an assessment and review of the exploration costs in Lumphun, Phrae and Chiangmai province incurred by the Company concluded its studies and assessment and determined that no economically viable resource exists and has recognized a provision for impairment in the amount of Baht 76 million.

#### Puthep Co., Ltd.

As of December 31, 2012, the capitalised exploration and acquisition costs incurred by Puthep amounting to Baht 926.2 million. At the date of these financial statements, the Company continues to conduct a review to assess the economic viability of the project. The company's exploration activities are in Loei province, in North Eastern Thailand. The principle resource in the exploration area relates to copper and gold resource. Technical assessments conducted by the company and its partners indicate commercially recoverable resource supporting the cost for a scalable leach operation to allow for the development of the resource. To proceed further with the project, the company needs to obtain relevant mining licenses, forestry permits and complete an Environmental and Health Impact Assessment and finalize a feasibility study. These processes are currently underway and being reviewed by the Company. In addition the company is also evaluating options on whether to consider selling the project to interested parties. The company will continue evaluating the project to determine its viability during 2013.

#### Padaeng Industry (Laos) Co., Ltd.

In October 2006, the Company through its subsidiary Padaeng Industry (Laos) signed a 5-year exploration agreement with the Department of Mines and Geology of Lao PDR which expired on 27 October 2011 for the purposes of exploring and producing resources containing Zinc. As of December 31, 2012 and 2011, the total amount of exploration costs capitalised amounted to Baht 102.9 million and Baht 93.8 million respectively. Although the exploration agreement with the Lao PDR has been extended to October 27, 2014, during the fourth quarter of 2012, the Company's management concluded that significant expenditures and alternative drilling methods not currently utilized by the company would be required to proceed further with the assessment of the project's commercial viability. Therefore, based on this review the company has ceased further exploration activities until a viable option for development can be determined. Consequently, the company has recognised a provision for impairment in respect to exploration costs capitalized.

## ii) Concession operating right and other capitalised cost

### South East Asia Metals Co., Ltd.

On September 4, 2009, South East Asia Metals Co., Ltd. ("SEAMET"), a subsidiary of Padaeng Properties Co., Ltd., has entered into the Concession Operation Agreement with Mayflower Mining Enterprises Ltd. ("MME"), registered in the Union of Myanmar. Under this agreement, SEAMET has obtained the operating rights of a mining concession owned by MME.

In 2011, SEAMET has entered into a service agreement related to a mining operation in the Union of Myanmar with Mali Mining & Metallurgy Pte. Ltd., ("Mali"). Under the terms of the service agreement, Mali was to receive Baht 120 million following the successful exploration and development of the area. This transaction was approved by the Padaeng Industry's shareholders at the Ordinary Shareholders' Meeting on April 27, 2011. On December 31, 2012, SEAMET and Mayflower signed a termination agreement to stop further operations as the exploration activities did not identify any commercially recoverable resource. Therefore, the Company has written off all costs capitalized in the amount of Baht 43 million.

## 12. Other non-current assets

Other non-current assets as at 31 December 2012 and 2011 comprise:

### i) Deferred environmental rehabilitation expenses-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At 1 January	25,246,380	20,518,370	25,246,380	20,518,370
Additions	4,730,967	9,671,221	4,730,967	9,671,221
Closing book amount	29,977,347	30,189,591	29,977,347	30,189,591
<u>Less</u> Amortisation expense	<u>(6,156,722)</u>	<u>(4,943,211)</u>	<u>(6,156,722)</u>	<u>(4,943,211)</u>
At 31 December	<u>23,820,625</u>	<u>25,246,380</u>	<u>23,820,625</u>	<u>25,246,380</u>

## ii) Deferred environmental risk assurance expenses-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	19,205,548	21,404,011	19,205,548	21,404,011
Additions	1,296,565	1,642,647	1,296,565	1,642,647
Closing book amount	20,502,113	23,046,658	20,502,113	23,046,658
<u>Less</u> Amortisation expense	(4,142,550)	(3,841,110)	(4,142,550)	(3,841,110)
At December 31	16,359,563	19,205,548	16,359,563	19,205,548

Deferred risk assurance costs related to payments made for future environmental restoration costs and are amortised over the life of the related mining licenses.

## iii) Others

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Deposits and installment payments for condominium units	74,932,723	74,932,723	-	-
<u>Less</u> Allowance for doubtful accounts	(74,932,723)	(74,932,723)	-	-
Total	-	-	-	-
Capitalised software				
At 1 January	2,872,378	5,007,699	2,690,146	4,862,595
Additions	945,344	565,287	945,344	464,755
Closing book amount	3,817,722	5,572,986	3,635,490	5,327,350
<u>Less</u> Amortisation expense	(2,022,738)	(2,700,608)	(1,935,078)	(2,637,204)
At 31 December	1,794,984	2,872,378	1,700,412	2,690,146
Deposits	875,911	935,911	719,311	719,311
Others	5,693,311	5,391,021	5,693,311	5,391,021
Total	8,364,206	9,199,310	8,113,034	8,800,478

A subsidiary has provided an allowance of Baht 74.9 million against deposits and installment payments for certain condominium units whose construction was suspended due to unfavourable economic conditions.

#### Others

The Company also has general investments which are invested in third parties in the amount of Baht 14.4 million that have been fully written down in value.

### 13. Short-term loans from financial institutions

Short-term loans from financial institutions as at December 31, 2012 and 2011 comprise:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Trust receipts	811,988,641	359,934,913	811,988,641	359,934,913
Promissory notes	-	365,961,397	-	365,961,397
Total	811,988,641	725,896,310	811,988,641	725,896,310

The Company has entered into short-term financing arrangements to fund its operations with various financial institutions. The interest rates, the Company is paying on the trust receipts and promissory notes are in the range of 0.86% - 1.27% per annum.

### Financing arrangements available

	Consolidated		Company	
	2012 in million Baht	2011 in million Baht	2012 in million Baht	2011 in million Baht
Bank overdraft	60	80	60	80
Short-term loans	2,968	3,130	2,968	3,130
Bank guarantee	1,309	1,068	1,306	1,065
Total	4,337	4,278	4,334	4,275



## 14. Bank guarantees

As of December 31, 2012, the Company and subsidiaries have given letters of guarantee in the ordinary course of business issued by banks of approximately Baht 433.14 million (2011: Baht 432.3 million).

## 15. Provisions for restoration and rehabilitation expenses

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	96,320,858	92,144,122	96,320,858	92,144,122
Accretion expense	22,776,618	23,509,277	22,776,618	23,509,277
Amounts utilised	(14,828,839)	(19,332,541)	(14,828,839)	(19,332,541)
At December 31	104,268,637	96,320,858	104,268,637	96,320,858

The provision for restoration costs represents amounts provided for the estimated costs of restoration of cadmium and residue ponds at Tak as well as rehabilitation and environmental risk assurance of the mined area in the Mae Sod in accordance with the government regulations and the Company's commitments.

## 16. Employee benefit obligations

The amounts recognized in the statements of comprehensive income are as follows:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	118,147,530	122,694,239	116,826,930	122,694,239
Current service cost	7,010,253	6,240,590	6,586,953	6,240,590
Interest cost	6,556,320	6,001,039	6,556,320	6,001,039
Benefits paid	(22,257,369)	(26,031,030)	(22,257,369)	(26,031,030)
<u>Loss</u> on curtailment	-	9,242,692	-	7,922,092
Actuarial losses	18,600,441	-	18,600,441	-
At December 31	128,057,175	118,147,530	126,313,275	116,826,930

The amounts recognized in the statements of comprehensive income are as follows:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Current service cost	7,010,253	6,240,590	6,586,953	6,240,590
Interest cost	6,556,320	6,001,039	6,556,320	6,001,039
Loss on curtailment	-	10,135,858	-	7,922,092
Actuarial losses	18,600,441	-	18,600,441	-
Total	32,167,014	22,377,487	31,743,714	20,163,721

The principal actuarial assumptions used were as follows:

	Consolidated		Company	
	2012 (Percent)	2011 (Percent)	2012 (Percent)	2011 (Percent)
Discount rate	4.3	5.7	4.3	5.7

The Company recognises the costs of employee retirement benefits payable in accordance with Thai Labour Law. The amount of retirement benefits are recorded based on the projected unit credit method by an actuarial valuation completed using end of period employee wages, turnover rates, retirement ages, mortality, length of service and other factors. All actuarial gains and losses following changes in actuarial assumptions of post employment defined benefit plans are recognised through equity in the year of occurrence.

## 17. Other current liabilities

Other current liabilities as of December 31, 2012 and 2011 comprise:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Social security and other taxes	9,343,955	13,956,946	8,744,686	13,950,628
Accrued expenses	42,363,419	52,272,061	41,616,294	47,962,132
Sales advances	21,319,327	21,734,437	20,969,887	21,398,437
Royalty payable	907,623	2,700,000	907,623	2,700,000
Other payables	58,660,324	68,770,089	59,972,272	66,352,676
Total	132,594,648	159,433,533	132,210,762	152,363,873

## 18. Commitments

As of December 31, 2012 and 2011, the Company has the following commitments for the acquisition of plant and equipment that have been contracted but not recorded as liabilities:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Not later than 1 year	94,291,322	54,288,316	94,291,322	54,288,316

As of December 31, 2012 and 2011, the Company has the following commitments for the purchase of raw materials that have been contracted but not recorded as liabilities:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Not later than 1 year	349,542,534	289,587,301	349,542,534	289,587,301

In addition, as of December 31, 2012, the Company has contracted for the purchase of raw materials that contained zinc units of approximately 8,979 mt (2011 : 10,801 mt).

## 19. Share capital and premium on share capital

	Number of Shares	Ordinary Shares Baht	Shares Premium Baht	Total Baht
For the year ended December 31, 2012				
At January 1	226,000,000	2,260,000,000	602,413,600	2,862,413,600
Movement during the year	-	-	-	-
At December 31	226,000,000	2,260,000,000	602,413,600	2,862,413,600

As of December 31, 2012, the total authorised number of ordinary shares is 226,000,000 shares (2011: 226,000,000 shares) with a par value of Baht 10 per share (2011: Baht 10 per share). All issued shares are fully paid.

## 20. Legal reserve

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	226,000,000	226,000,000	226,000,000	226,000,000
Appropriation during the year	-	-	-	-
At December 31	226,000,000	226,000,000	226,000,000	226,000,000

Under the Public Companies Act, B.E. 2535, the company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve reaches 10% of the registered capital.

## 21. Expenses by nature

The following expenditures items, classified by nature, have been charged in arriving at the operating (loss) profit:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Movement in inventories	(819,862,623)	(730,614,021)	(819,862,623)	(730,614,021)
Raw materials, spare parts and consumables used	4,127,244,322	4,906,978,409	4,127,244,322	4,906,978,409
Employee benefits expense	517,473,790	529,646,835	510,583,345	515,790,364
Utility expenses	1,461,509,232	1,417,253,596	1,460,863,598	1,416,786,649
Depreciation and amortisation expenses	321,237,424	313,130,710	283,157,493	302,197,785



## 22. Basic (loss) earnings per share

Basic (loss) earnings per share is calculated by dividing the net (loss) profit attributable to shareholders by the weighted average number of ordinary shares in issue during the year.

	Consolidated		Company	
	2012	2011	2012	2011
Net (loss) profit attributable to ordinary shareholders of the Company (Baht)	(571,403,827)	4,275,506	(509,801,452)	41,680,698
Weighted average number of ordinary shares outstanding (shares)	226,000,000	226,000,000	226,000,000	226,000,000
Basic (loss) earnings per share (Baht)	(2.53)	0.02	(2.26)	0.18

There are no potential dilutive ordinary shares in issue for the years ended December 31, 2012 and 2011.

## 23. Dividend

At the Ordinary Shareholders' Meeting held on April 26, 2012, shareholders approved the annual dividend payment from net profit of the Company for the year ended December 31, 2011 of Baht 0.50 per share totaling Baht 113 million. (2010: totaling Baht 291.5 million). The dividend was paid on May 23, 2012.

## 24. Related parties transactions

### i) Investments in related parties-net

Details of investments in subsidiaries and jointly controlled entity are as follows:

	Consolidated	Company			Consolidated	Company		
	December 31, 2012	December 31, 2012			December 31, 2011	December 31, 2011		
	Equity Baht	Paid-up capital Baht	% Ownership investment	Cost Baht	Equity Baht	Paid-up capital Baht	% Ownership investment	Cost Baht
<b>Subsidiaries</b>								
Padaeng Properties Co., Ltd.	-	80,000,000	100	80,000,000	-	80,000,000	100	80,000,000
Puthep Co., Ltd.	-	285,589,732	51	145,650,772	-	285,589,732	51	145,650,772
Padaeng Industry (Laos) Co., Ltd.	-	27,569,653	100	27,569,653	-	27,569,653	100	27,569,653
Padaeng International Mining Co., Ltd.	-	100,000	100	100,000	-	100,000	100	100,000
Ton Sangkasi Pte Ltd.	-	246,700	100	246,700	-	246,700	100	246,700
Total	-			253,567,125	-			253,567,125
<b>Less Diminution</b>								
Padaeng Industry (Laos) Co., Ltd.	-			(27,569,653)	-			(20,215,102)
Padaeng International Mining Co., Ltd.	-			(100,000)	-			(100,000)
Ton Sangkasi Pte Ltd.	-			(246,700)	-			-
Investments in subsidiaries-net	-			225,650,772	-			233,252,023

All subsidiaries are incorporated in Thailand except Padaeng Industry (Laos) Co., Ltd. and Ton Sangkasi Pte Ltd.

#### Jointly controlled entity

Maesod Clean Energy Co., Ltd.	<u>69,939,097</u>	675,000,000	35	<u>236,249,800</u>	<u>94,192,819</u>	675,000,000	35	<u>236,249,800</u>
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Maesod Clean Energy Co., Ltd. is incorporated in Thailand.

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
At January 1	94,192,819	105,271,490	469,501,823	469,255,123
Share of loss from jointly controlled entity	(24,253,722)	(11,078,671)	-	-
Investment in a subsidiary	-	-	-	246,700
Diminution of investment	-	-	(7,601,251)	-
At December 31	69,939,097	94,192,819	461,900,572	469,501,823

As of December 31, 2012, Padaeng Industry (Laos) has total authorised share capital of USD 1,273,000 of which USD 797,000 has been issued and paid up. The current investment value of Padaeng Industry (Laos) in the Company's books net of diminution in value of investment is zero (2011 : Baht 7,354,551).

As of December 31, 2012, Puthep has total authorised share capital of 4,606,286 shares (2011: 4,606,286 shares) outstanding for a cumulative amount of Baht 377,102,615 (2011: Baht 377,102,615).

SEAMET has entered into a service agreement related to a mining operation in the Union of Myanmar with Mali Mining & Metallurgy Pte. Ltd. The details regarding the service agreement are explained in the Note 11(ii).

On January 18, 2011, Ton Sangkasi Pte Ltd., a Singapore registered company was incorporated with capital of SGD 10,000 which has been solely subscribed by the Company.

#### Jointly controlled entity

On October 9, 2006, Maesod Clean Energy Co., Ltd. ("MCE") was created together with MP Energy Co., Ltd. and Thai Oil Public Company Limited. The jointly controlled entity produce ethanol as an alternative energy source. As of December 31, 2012, MCE has 67,500,000 shares authorised and outstanding. The Company has subscribed to a total of 23,625,000 shares in MCE for a 35% interest.

Under the terms of a loan agreement dated September 9, 2011, signed by the Company and its partners with MCE, the Company provided to MCE a Baht 105 million loan on October 5, 2011. After a period of one year from the date of the agreement, the Company may convert this loan into equity of MCE. To date the Company has not exercised this provision. The loan carries an interest rate of 4.2% per annum.

The following amounts represent certain selected financial information as at and for the years ended December 31, 2012 and 2011 of MCE:

	December 31, 2012 in thousand Baht	December 31, 2011 in thousand Baht
Property, plant and equipment	1,674,345	1,825,436
Current assets	790,124	549,223
Non-current assets	2,354	2,766
<b>Total assets</b>	<b>2,466,823</b>	<b>2,377,425</b>
Long-term borrowing	1,070,000	1,240,000
Current liabilities	1,196,996	866,600
<b>Total liabilities</b>	<b>2,266,996</b>	<b>2,106,660</b>
<b>Net assets</b>	<b>199,827</b>	<b>270,825</b>
Revenues	1,143,153	1,010,904
Expenses	(1,214,151)	(1,041,486)
<b>Net loss for the year</b>	<b>(70,998)</b>	<b>(30,582)</b>

MCE has a fiscal year that ends on October 31. For the two months ended December 31, 2011, MCE had a net loss of Baht 41,161 thousand. The operating results of MCE for the two months period as of December 31, 2011 included in the consolidated financial statements are unaudited.

On January 11, 2012, MCE changed its accounting period from October 31 to December 31 and was approved by Department of Business Development in Ministry of Commerce. The operating results of MCE as of December 31, 2012 included in the consolidated financial statement have been audited.

As of December 31, 2012, there are no contingent liabilities relating to the Company's interest in the jointly controlled entity.

## ii) Sales of goods and services

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
For the years ended 31 December				
Sales of goods and services:				
Padaeng Properties Co., Ltd.	-	-	1,037,520	943,200
Padaeng Industry (Laos) Co., Ltd.	-	-	3,217,450	4,085,144
Puthep Co., Ltd.	-	-	316,680	312,130

Sales to related parties are based on current industry market practices and prices.

## iii) Purchases of goods and services

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
For the years ended December 31				
Purchases of goods and services:				
Padaeng Properties Co., Ltd.	-	-	5,669,692	6,125,475
Puthep Co., Ltd.	-	-	-	-
Maesod Clean Energy Co., Ltd.	-	-	-	13,030

Purchases from related parties are based on current industry market practices and prices.

## iv) Other receivables-related parties-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Padaeng Properties Co., Ltd.	-	-	357,702	82,002
Padaeng Industry (Laos) Co., Ltd.	-	-	37,202,463	33,984,962
Puthep Co., Ltd.	-	-	26,390	-
Padaeng International Mining Co., Ltd.	-	-	136,913	126,684
Ton Sangkasi Pte Ltd.	-	-	-	1,594,312
Total	-	-	37,723,468	35,787,960
<u>Less</u> Allowance for doubtful accounts	-	-	(37,339,376)	(126,684)
Other receivables-related parties-net	-	-	384,092	35,661,276



### v) Advances to related parties-net

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Padaeng Industry (Laos) Co., Ltd.	-	-	84,243,416	68,469,416
Padaeng International Mining Co., Ltd.	-	-	532,300	492,300
Ton Sangkasi Pte Ltd.	-	-	12,278,558	6,532,246
Total	-	-	97,054,274	75,493,962
<u>Less</u> Allowance for doubtful accounts	-	-	(97,054,274)	(492,300)
Advance to related parties-net	-	-	-	75,001,662

Advance from the Company in the amount of Baht 84,243,416 represents an advance for share subscription payment in Padaeng Industry (Laos).

As of December 31, 2012, the amounts due from the related entities have been fully provided against because as noted in Note 11, exploration activities in these entities have not resulted in economically viable projects.

### vi) Other payables-related party

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Padaeng Properties Co., Ltd.	-	-	482,287	527,684
Total	-	-	482,287	527,684

### vii) Key management compensation

The compensation paid or payable to key management for employee services for the period ended December 31, 2012 and 2011 is shown below:

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
Short-term employee benefits	29,440,000	47,096,562	29,440,000	47,096,562
Post-employee benefits and termination benefits	15,613,108	20,068,130	15,613,108	20,068,130
Total	45,053,108	67,164,692	45,053,108	67,164,692

### viii) Long-term loan from other party

Under the terms of a Loan Agreement between Puthep and PNA (Puthep) dated August 15, 2008 and executed in March 2009, PNA (Puthep) agreed to advance funds necessary to complete a feasibility study for the Puthep copper project. The loan amount is in addition to equity funding of USD 6,000,000 or Baht 216,492,547 received from PNA (Puthep). Interest on principal amounts advanced under the Loan Agreement are calculated based on best commercial rates available for PNA (Puthep) and are to be capitalised. Under the terms of the loan, interest expense will cease to accrue on the third anniversary of the earlier of the due date for delivery of the bankable feasibility study (September 19, 2009) and the actual date that the feasibility study is completed. The interest expense has stopped accruing since January 2012. Puthep is not obliged to make loan repayments until such time as it has generated sufficient profits to commence making repayments at which time it will then commence to be equal to 35% of distributable net profits of the company, see Note 11.1.

	Consolidated		Company	
	2012 Baht	2011 Baht	2012 Baht	2011 Baht
<b>PNA (Puthep) Pty Ltd.</b>				
At January 1	486,145,263	464,431,861	-	-
Loan increase during the year	8,177,387	21,713,402	-	-
At December 31	494,322,650	486,145,263	-	-
Accrued interest expenses	69,141,292	69,141,292	-	-

## 25. Risk management policy for assets and liabilities

### 25.1 Risk management and hedging instruments

#### Price risk

The Company is also exposed to risk resulting from fluctuations in commodity prices. The Company currently engages only in transactional hedging with the purpose of mitigating price exposure from the difference in timing between purchased raw material and finished product sales. Any settlement gains or losses realized from hedging arrangements are recorded against the corresponding revenue or cost of purchases as appropriate. As of December 31, 2012, the net sales of 3,900 mt of zinc on the London Metal Exchange are outstanding. The change in fair value of these open positions amounts to USD 949,263 or Baht 29,073,086 is favourable. These fair values reflect the mark to market values of the contracts at prevailing period end rates. These positions will be offset by committed and priced physical purchases and sales contracts. The operations carried out on the future markets for hedging transactional risks as described are not of a speculative nature.

#### Credit risk

Credit risk refers to the risk that counterparties will default on their contractual obligations resulting in a financial loss to the Company. As a general rule, the Company has a credit risk management policy of obtaining credit insurance or collateral from the customers before commencing trade. The collateral may include bank guarantees or cash guarantees. The remaining Company's credit risk is spread amongst several customers. The maximum exposure to credit risk at the reporting date is the carrying amount of each receivable.

#### Interest rate risk

Interest rate risk in the statement of financial position from the potential for a change in interest rates to have an adverse effect on the net interest earnings of the Company in the current reporting period and in future years.

### 25.2 Fair values

The carrying amounts at the financial statements date of cash and cash equivalents, trade accounts receivable, short-term loans to related parties, other current assets, certain other assets, loans from financial institutions, trade accounts payable, short-term loans and advances from other parties, accrued interest expenses, accrued electricity expenses, royalty payable and other current liabilities approximate their fair values.

### **25.3 Exploration risk**

In order to maintain a supply base for its smelter, the Company and some of its subsidiaries are performing exploration activities. These expenses are capitalised and eventually impaired as explained in Note 11 of these financial statements. The current increased level of activity is likely to generate higher level of exploration costs capitalised than in the previous years increasing the impact of the impairments. Regular assessments by the management, once sufficient reliable data have been collected and compiled, should lower both uncertainty and risk level related to the recoverability of these costs.

## **26. Litigation**

As of December 31, 2012, the Company has been served notice of five complaints by 1,141 plaintiffs filed in the Bangkok Southern Civil Court. The plaintiffs are seeking compensation of Baht 3,969 million from the Company alleging that it caused cadmium contamination in the Mae Sod district of the Tak province. The Company has filed answers to all the claims as ordered by the Court, the cases are pending for the court proceeding, but is confident that its strict environmental measures are in line with the regulations and requirements of the authorities. Management intends to defend the case vigorously. At this stage, the outcome of the proceedings is unknown and no contingent liability has been recorded.

On 26 October 2010, the Company received Letter from the Ministry of Industry ordering it to perform, within 180 days, an additional Environmental and Health Impact Assessment ("EHIA") in compliance with instructions from the Ministry of Natural Resources and Environment. Failure to do so would cause the revocation of the latest mining concession.

The Company objects to the legality of that order and lodged a Complaint by the Central Administrative Court in January 2011 as a case is pending for the court consideration as of December 31, 2012.

## 082 Corporate Governance

The Company conducts business in compliance with “The Principles of Good Corporate Governance” as outlined by the Stock Exchange of Thailand. In doing so, the Company demonstrates its commitment to these accepted standards and enables confidence of the shareholders, investors and any other related entity or persons. The Audit Committee, by means of the internal audit department, supervises financial statements, internal control and practices of good corporate governance to ensure compliance with PDI’s policies. The Company has also endorsed a Code of Ethics to which all executives and employees are assumed to comply in conducting business. The Company has installed a Nomination and Remuneration committee to supervise the process of directors’ nomination and to recommend fair and reasonable annual remuneration for the Board, the subcommittees and the top executives. To ensure efficient and productive business operations a Strategic Committee has been established to propose the Company’s strategic plan to the Board of Directors.

The Company has proceeded in other areas as well, in an effort to be accepted by all its stakeholders, as having good corporate governance as imposed by the Stock Exchange of Thailand.

### I. Rights of shareholders

The Company considers each shareholder equally and stipulates procedures for the shareholders meeting accordingly the law and in compliance with the guidelines of the Stock Exchange of Thailand.

In 2012 the Company organised one annual shareholders’ meeting April 26, 2012 at the Queen Sirikit National Convention Center, Bangkok. An invitation letter with agenda of the meeting and related documents were sent to the shareholders 7 days prior to the meeting. Topics included the views of the Board of Directors and the review of minutes of the previous meeting. As such allowing shareholders ample time and opportunity to review and consider the topics. The Company accommodated shareholders in a convenient location with appropriately sized meeting space. Shareholder proxies’ were permitted in the event they

were unable to attend the meeting. The Company also posted the information regarding shareholders meeting on the Company’s website and shareholders were invited to submit questions related to the Company operations through the website, prior to the meeting.

During the 2012 annual shareholders’ meeting, a total of 7 directors attended, including the Chairman of the Audit Committee. The Chairman of the meeting allowed equal opportunity for all shareholders to question, comment and submit suggestions regarding Company operations. Prominent opinions were recorded in the minutes of the meeting.

In addition to the annual shareholders’ meeting, the Company calls additional shareholders’ meetings, if necessary, in the event of specific emerging topics, which are pertinent to the shareholders’ interests or relate to laws or regulations that require the shareholders’ approval.

### II. Equitable treatment of shareholders

The Company treats all shareholders equally and stipulates procedures for the shareholders meeting accordingly law and in compliance with guidelines of the Stock Exchange of Thailand. Each shareholder has one vote for each share. Shareholders can send in their proxies in the event that they are unable to attend.

To prevent conflicts of interest and misuse of inside information for personal gain, the Board of Directors investigates any occasion which may lead to a dispute and has established a policy and guidelines to prevent executives and related persons from using internal company information for personal gains. Company holdings by directors and executives are assessed to screen any use of inside information for gains by executives.

In case of related parties’ transactions, the Company discloses all necessary information together with Directors’ opinion to the public according to SET regulation.



The Company has established a channel (through Company's website) to allow shareholders to submit names of qualified candidates to be nominated as board members and to propose an agenda for and in advance of the annual general shareholders' meeting.

### III. Role of stakeholders

Driven by innovation and sustainable growth, the Company maximizes added value for its clients, with respect to its people and the environment. PDI supports the communities in which it operates and gives the best possible return to its shareholders.

#### Commitment to customers & suppliers

PDI commits to provide, on time and at a reasonable price, products and services meeting the requirements of customers. The Company also provides technical service to support its customers. The Center of Excellence, established by the Company in 2010, has become the center for collaboration for all parties, enabling capabilities of the Thai zinc die casting and zinc galvanizing industries to compete with the regional players. The Company acts fair in all business dealings and in compliance with applicable laws and regulations.

#### Commitment to shareholders

The Company respects the rights of its major and minor shareholders equally. Along the line with PDI's vision the Company commits to profitable and safe operations yielding the best possible return for the benefit of its shareholders.

#### Commitment to employees

A series of bold new initiatives were adopted and gradually phased in to respond to the Company's realigned corporate vision and strategy, yet building on its existing strong company values and code of conduct.

The Company ensures that its compensations & benefits systems are competitive with the industry and in line with employees' responsibilities and added value to the organization.

Details of the implementation plan can be found in the HR section of this annual report.

The Company considers safety and health as an unquestionable value. Accordingly, the Company has implemented an efficient occupational health and safety management system and promotes awareness through:

- Risk assessment of activities
- Regularly monitoring of health and safety in the work place
- Emergency equipment inspections and annual fire escape drills
- Promotion of safety in the work place according to the OHSAS 18001/ TIS 18001 Occupational Health and Safety Management System
- Providing annual health check-ups to monitor and prevent health threatening issues and to encourage good health and safety of all employees
- Organizing safety and health training for employees and contractors

More details can be found in the safety section of this annual report.

## Commitment to the community (local and national)

During the past three decades, PDI has demonstrated a durable engagement to operate its business under good corporate governance with accountability to society, the environment and the surrounding communities. The Company has deployed several activities to improve the quality of life and encouraged involvement from the neighboring communities. PDI's financial contribution reached over Baht 10 million in 2012, pushing the cumulative contribution of PDI to Community Commitment, since 1981 to nearly Baht 200 million.

Our commitments to the Community include supporting in the following areas

- Education
- Public facilities
- Environment
- Health
- Religion & culture
- Building community networks for learning and vacation supports
- The Padaeng Quality of Life Development Foundation

Details of actual activities can be found in the CSR section of this annual report.

## IV. Disclosure and transparency

The Company's manages its business with honesty, righteousness and ethics, with responsibility towards all stakeholders: customers, employees, shareholders and the society. The Company issued a Code of Ethics, which gives guidelines for work and employee behavior. All employees use this as guidance for their daily work inspired by the vision of the Company. The new Code of Ethics is practiced since 2008.

The Company ensures that important information, both financial and non-financial, as specified in relevant regulations through the channel of the SET is disclosed correctly, accurately, on a timely basis and transparently. In addition the financial report, the annual statement (Form 56-1) and the annual report are available on the Company's website.

The Board of Directors has also called for the disclosure of company information in an accurate, complete, transparent and widespread manner. As such financial information as well as general information about the Company, which might impact the value of company, is readily available. Shareholders and other interested parties can access any such information through the various the Stock Exchange of Thailand media outlets or directly from the Company's website. A specific investor relations function has been established and existing and potential investors can obtain information by contacting the Company directly at Tel: 66(0)2695-9499 or at [www.padaeng.com](http://www.padaeng.com) or e-mail inquiries to the Investor Relation Manager at [woratipr@padaeng.co.th](mailto:woratipr@padaeng.co.th).

The Company recognizes the importance of internal control systems at managerial and operational levels and has created an authority manual for reference. An independent internal audit department, reporting directly to the Audit Committee, organizes various internal checks and conducts audits as needed.

## V. Responsibilities of the Board

The Company's Board of Directors is responsible for acting in compliance with by-laws, objectives and guidelines of the Company and resolutions of the shareholders' meeting, with honesty and prudence in the best interest of the Company. In addition the Board of Directors contributed in establishing the vision, mission, strategy, objectives, the business plans and budget of the Company. The Board ensures that the management team conducts operations in accordance with the Company's business plan, to add value to its business and ensure sustainability for its shareholders.

The Board of Directors acknowledges that the Company maintains adequate internal controls and its financial statements as of December 31, 2012, are reliable.

## Balance of authority for non-executive directors

The Company's Board of Directors consists of qualified directors with a broad realm of experience, totaling 10 members at the end of 2012 as follows:

Executive Directors	2 members
Non-Executive Directors	8 members
Directors representing major shareholders	3 members
- Bali Ventures Limited holds	2 seats
- Ministry of Finance holds	1 seat
Independent directors	5 members
(3 of the independent directors are Audit Committee members)	

## Aggregation or segregation of positions

The function of Chairman of the Board of Directors and MD are separated to ensure a clear distinction between responsibilities in policy making and managing daily operations. The Company has clearly defined the authority and responsibilities of management at every level.

## Remunerations for directors and management

Remuneration for directors - Remuneration for Company directors has been determined in a clear manner and is comparable to that of similar companies in the industry. The level of remuneration has been approved by shareholders. Directors who have been selected to participate in the Audit Committee, the Strategic Committee and the Nomination and Remuneration Committee receive additional remuneration aligned with the additional responsibilities.

Remuneration of top executives is aligned with the principles and policies of the Board of Directors and corresponds with overall company and individual performance.

Remuneration of the Board, subcommittees and top executives is reviewed by the Nomination and Remuneration Committee prior submitting to the Board.

Remuneration for directors in 2012 is detailed in section Remuneration for executives.

## Meetings of the Board of Directors

The Board of Directors meets every 3 months and may call additional dedicated meetings. Clear agenda topics and agenda minutes of the meetings are prepared prior to each meeting and the Company Secretary sends out an invitation letter and relevant documents to Board members before the meetings, enabling sufficient time for review. During 2012, the Board of Directors met 5 times with records of attendance as follows:

Name	Date of appointment	No. of meetings	Excused	Attendance (times)
1. Mr. Arsa Sarasin	April 26, 2010	5	-	5
2. Mr. Francis Vanbellen <sup>1</sup>	April 26, 2012	3	-	3
3. Mr. Vinij Ongnegnun <sup>2</sup>	April 26, 2010	2	-	2
4. Mr. Ahmad Bin Fahad	April 26, 2012	5	-	5
5. Mr. Ravi Gidwani	April 27, 2011	5	-	5
6. Mr. Surapol Supradit	April 27, 2011	5	-	5
7. Mr. Vorapak Tanyawong <sup>3</sup>	May 8, 2012	2	1	1
8. Mr. Paron Israsena	April 26, 2012	5	-	5
9. Mr. Karel Vinck	April 27, 2011	5	-	5
10. Mr. Vinai Vamvanij	April 26, 2010	5	-	5
11. Mr. Aswin Kongsiri	April 26, 2010	5	1	4
12. Mr. Pinit Vongmasa	April 26, 2012	5	-	5

**Note:**

1. Mr. Francis Vanbellen was appointed as the director on April 26, 2012.
2. Mr. Vinij Ongnegnun resigned from the director and Managing Director on April 30, 2012.
3. Mr. Vorapak Tanyawong was the Director from May 8 until November 12, 2012.

## Board self-assessment

The Board yearly engages into self-assessment enabling all board members to consider the overall Board's performance and resolve any potential problem.

## Subcommittees

The Board of Directors has established the Audit Committee, composed of independent directors, to supervise and assure integrity of the financial statements and internal control systems. The insights of the Audit Committee are reflected in the annual report. In addition the Company installed the Strategic Committee and the Nomination and Remuneration Committee to support supervising PDI's operations. Each committee has its own dedicated members, scope of work and responsibilities, which are detailed in Management structure section.

## The Company Secretary

In the Board meeting No. 04-2551 on May 13, 2008, the board appointed Mr. Surin Tanticharoenkiat as the Company secretary responsible for organizing the meetings of the Board and the shareholders. The Company secretary is also in charge of preparing the minutes of the Board meetings and the minutes of shareholders' meetings as well as filing documents as stipulated by law.

# Shareholders and Management

## Shareholders structure

The Company's registered and paid-up capital amounts to Baht 2,260,000,000 issued as 226,000,000 ordinary shares at Baht 10 per share.

**First 10 major shareholders** of Padaeng Industry Public Company Limited as of March 22, 2013, which is the latest date of the close of the Shareholders' register, are as follows:

No.	Name	No. of shares	% of Total shares
1.	Bali Ventures Limited	49,087,200	21.720
2.	Ministry of Finance	31,200,000	13.805
3.	Mr. Taveechat Jurangkul	8,134,000	3.599
4.	Bangkok Bank Public Company Limited	7,301,070	3.231
5.	Mr. Supachai Veeraborvornpong	3,958,500	1.752
6.	Thai NVDR Limited	3,171,560	1.403
7.	Mrs. Nunta Rungnoppakunsi	2,218,300	0.982
8.	Mr. Nurak Mahatana-arnont	2,133,400	0.944
9.	Mr. Kiat Srichomkwan	1,885,100	0.834
10.	Mr. Natee Sirawat	1,800,000	0.796

## Major shareholders

No.	Name	No. of shares	% of Total shares
1.	Bali Ventures Limited	49,087,200	21.720
2.	Ministry of Finance	31,200,000	13.805

## Policy for payment of dividends

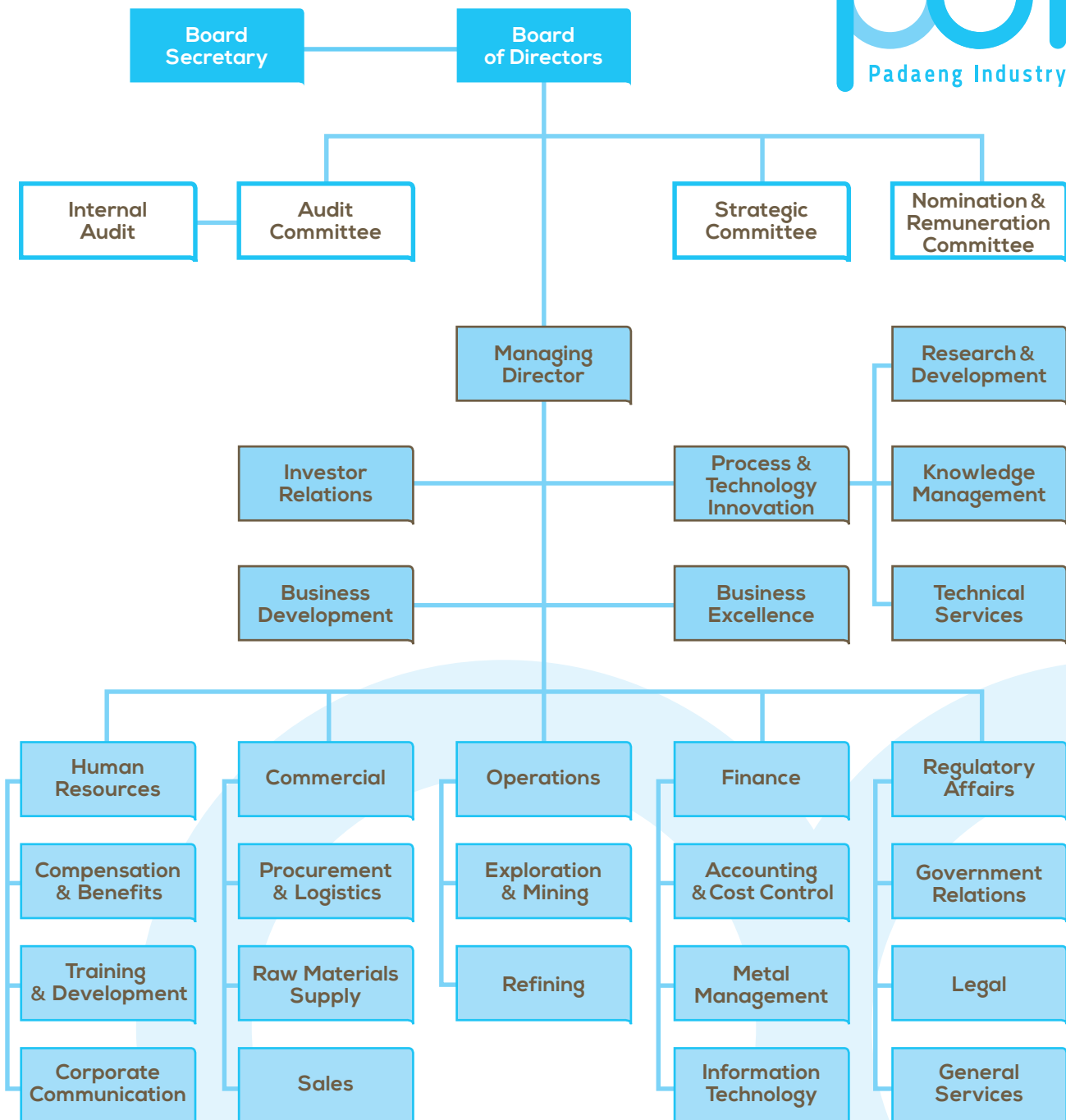
An amount of at least 5% of profits after corporate income taxes must be put in reserve, until the total amount in reserve equals 10% of the Company's authorized share capital. The Company will normally pay dividends up to 50% of profits after corporate income taxes, unless the Board determines that the near future cash needs of the Company justify reserving part of the profit to cover those needs.

At the meeting of April 26, 2012, and after reviewing the financial statements of December 31, 2011, the Board proposed and the shareholders approved the payment of a dividend for 2011 of Baht 0.50 per share, to be paid from the retained earnings and 2011 operation result.

There is no fixed dividend payment policy for subsidiaries. However subsidiary will generally follow the policy of the Company.



## Organization chart of Padaeng Industry Public Company Limited



## Management

Padaeng Industry Public Company Limited is managed and controlled through 4 committees.

### 1. Board of Directors

The duties and responsibilities of the Company's Board of Directors include:

1. Manage Company operations according to the law, rules and regulations, the mission and vision of the Company and the resolutions of the Company shareholders

2. Propose the level of dividend to be paid to the shareholders

3. Determine the level of compensation or bonus to be awarded to officers, employees or other staff working for the Company (permanent or temporary), not including pension benefits or other remuneration paid to directors

4. Review the Company's strategic action plan and assess the operations as suggested by the Strategic Committee

In carrying out its duties and responsibilities, the Board of Directors may assign the Managing Director, any or several directors or any other person(s), to take action on its behalf.

The Company's Board of Directors is composed of 10 members:

No.	Name	Title
1.	Mr. Arsa Sarasin	Chairman
2.	Mr. Francis Vanbellen	Director and Managing Director
3.	Mr. Ahmad Bin Fahad	Director
4.	Mr. Ravi Gidwani	Director
5.	Mr. Surapol Supradit	Director
6.	Mr. Paron Israsena	Independent Director
7.	Mr. Karel Vinck	Independent Director
8.	Mr. Vinai Vamvanij	Independent Director
9.	Mr. Aswin Kongsiri	Independent Director
10.	Mr. Pinit Vongmasa	Independent Director
&	Dr. Surin Tanticharoenkiat	Company Secretary

### Independent directors

1. Holding shares not exceeding 5% of the paid-up capital of the Company, affiliated company, associated company or related company, inclusive of the shares held by any related persons.

2. Not taking part in the management of the Company, affiliated company, associated company, related company or majority shareholders of the Company. Not being an employee, staff member or advisor who receives a regular salary from the Company, affiliated company, associated company, related company or majority shareholders of the Company.

3. Having no direct or indirect benefit or interest in finance and management of the Company, affiliated company, associated company or majority shareholders of the Company.

4. Having no benefit or interest of the said nature during the period of 1 year before his appointment as a director except where the Board of Directors has carefully considered that such previous benefit or interest does not affect the performance of duties and the giving of independent opinions.

5. Not being a related person or close relative of any management member or majority shareholders of the Company.

6. Not being appointed as a representative to safeguard the interests of the Company's directors, majority shareholders of the Company who are related to the Company's majority shareholders.

7. Being capable of performing duties, giving opinions or reporting the results of performance of work according to the duties delegated by the Board of Directors free and clear of the management or the majority shareholders of the Company including related persons or close relatives of the said persons.

### Authorized directors

The authorized directors include Mr. Arsa Sarasin, Mr. Francis Vanbellen and Mr. Vinai Vamvanij, two among three persons affix their signatures and seal of the Company.

## 2. Audit Committee

The Audit Committee has been established December 22, 1998 and at present consists of 3 directors:

No.	Name	Title
1.	Mr. Vinai Vamvanij	Chairman
2.	Mr. Paron Israsena	Member
3.	Mr. Aswin Kongsiri	Member
&	Dr. Surin Tanticharoenkiat	Secretary to the Audit Committee

Mr. Vinai Vamvanij is chairman of the Audit Committee. He has knowledge and experience reviewing financial statements of Companies. His backgrounds on financial statements reviews are as follows:

Year	Position	Company
1967-1968	Senior Auditor	Price Waterhouse & Co., Chartered Accountants
1963-1966	Audit & Accounting Clerk	R.J. Oehr & Church, Chartered Accountants Melbourne, Australia

In 2012 the committee met quarterly. In addition there were non-management meetings among the committee and the auditors and reported to the Board of Directors.

The Audit Committee's scope of authority includes:

1. Have the authority to request any information it considers relevant to its activities from the managing director or any managers of the Company.
2. Seek independent professional advice as it considers necessary.
3. Abstain from executive powers with regard to its findings and recommendations.

## 3. Strategic Committee

The Strategic Committee has been established July 13, 2000 and at present consists of 6 members:

No.	Name	Title
1.	Mr. Francis Vanbellen	Member
2.	Mr. Ahmad Bin Fahad	Member
3.	Mr. Ravi Gidwani	Member
4.	Mr. Surapol Supradit	Member
5.	Mr. Karel Vinck	Member
6.	Mr. Pinit Vongmasa	Member
&	Dr. Surin Tanticharoenkiat	Secretary to the Strategic Committee

In 2012 the committee held 6 meetings and reported to the Board of Directors.

The Strategic Committee is responsible for preparing and providing the Company's strategic work plan and strategic assessment for consideration by the Board of Directors, as well as giving recommendations to the Board of Directors. All matters regarding strategy and planning are channeled through the Strategic Committee for presentation and/or recommendation to the Board of Directors for consideration. Moreover, the Strategic Committee acts as an advisor to the Board of Directors, but does not have decision-making authority.

## 4. Nomination and Remuneration Committee

The Nomination and Remuneration Committee has been established February 25, 2005 and at present consists of 4 members:

No.	Name	Title
1.	Mr. Paron Israsena	Chairman
2.	Mr. Aswin Kongsiri	Member
3.	Mr. Pinit Vongmasa	Member
4.	Mr. Ahmad Bin Fahad	Member
&	Dr. Surin Tanticharoenkiat	Secretary to the Nomination and Remuneration Committee

In 2012 the committee held 3 meetings and reported to the Board of Directors.

The Nomination and Remuneration Committee is responsible:

1. To recommend new nominees to the Board to fill positions made vacant by directors who complete their terms or resign.

2. To review for the Board the succession plan of the Company's top executives.

3. To recommend fair and reasonable annual remuneration for the Board, the subcommittees and the top executives.

Details on the Meetings of the Board of Directors are listed in the Corporate Governance section.

## Executives (2012)

### 1. Arsa Sarasin, 76 Years Old

#### Chairman

**Education** • B.A. (Business Administration), Boston University, U.S.A.

**Training** Thai Institute of Directors Association - Director Accreditation Program (DAP) - Finance for Non-Finance Directors - Audit Committee Program (ACP)

**Current position** • Chairman, Padaeng Industry Public Company Limited • Chairman, Thai Asia Pacific Brewery Company Limited • Chairman, Siam Makro Public Company Limited • Chairman, Amata City Company Limited • Chairman of the Board of Governors, Amata Spring Country Club • Chairman, Maesod Clean Energy Company Limited • Chairman of Advisor, Thai-Laos Association • Vice Chairman, Thai Tapioca Development Institute • Director, Thai Pure Drinks Company Limited • Director and Member of the

Governance and Nomination Committee, the Siam Cement Public Company Limited • Independent Director and Audit Committee Member of Charoen Pokphand Foods Public Company Limited

**Working experience** • Chief Executive Officer, Padaeng Industry Public Company Limited • Director-General, Department of Economic Affairs, Ministry of Foreign Affairs • Thai Ambassador to Belgium & Chief of Mission to the European Community • Director-General, Department of Political Affairs, Ministry of Foreign Affairs • The Permanent Secretary of the Ministry of Foreign Affairs • Thai Ambassador to the U.S.A. • The Minister of Foreign Affairs • Chairman of the Asia-Europe Business Forum II • Vice Chairman of the Board of Directors and Advisor, Bangkok Bank Public Company Limited • Director, Vinythai Public Company Limited • Chairman of the Thai-Laos Association • His Majesty's Principal Private Secretary

### 2. Francis Vanbellen, 55 Years old

#### Director, Managing Director and Strategic Committee Member

**Education** • Master's Degree in Chemical Engineering, Catholic University Leuven (KUL), Belgium • Master of Business Administration, Vlerick Management School, Belgium • Strategic Innovation Management, Insead, Fontainebleau, France • Business Excellence Assessor, EFQM, Brussels, Belgium

**Current position** • Managing Director, Padaeng Industry Public Company Limited • Owner Vanbellen Consulting, Belgium

**Working experience** • Managing Director, Global Mining and Minerals, Belgium • Chairman of the Board, Global Mining and Minerals, Germany • Manager, special metals refinery, Umicore, Hoboken, Belgium • Manager, precious metals refinery, Umicore, Hoboken, Belgium • Manager, raw materials sampling department, Umicore, Hoboken, Belgium • Head of Department human resources & business excellence, Umicore Brussels, Belgium • Head of Department knowledge & supply chain management, Umicore, Hoboken, Belgium • Head of Department Precious

Metals Operations, Umicore, Hoboken, Belgium • Plant Manager, Umicore Precious Metals Refining Operations, Hoboken, Belgium

**3. Chaiyan Roojnawate, 64 Years Old**  
**Chief Manufacturing Officer**

**Education** • Bachelor Degree in Mechanical Engineering, Chulalongkorn University

**Current position** • Chief Manufacturing Officer, Padaeng Industry Public Company Limited

**Working experience** • Senior Vice President - Zinc Plant, Padaeng Industry Public Company Limited • Senior Vice President - Calcine Plant, Padaeng Industry Public Company Limited

**4. Suwit Uawanichkul, 59 Years Old**  
**Plant Manager**

**Education** • Bachelor Degree in Chemical Sciences, Chiang Mai University

**Current position** • Plant Manager, Padaeng Industry Public Company Limited

**Working experience** • Vice President - Production, Padaeng Industry Public Company Limited

**5. Tianchai Singhakarn, 56 Years Old**  
**Mine Manager**

**Education** • Bachelor Degree in Mining Engineering, Prince of Songkla University

**Current position** • Mine Manager, Padaeng Industry Public Company Limited

**Working experience** • Vice President - Mining & Exploration, Padaeng Industry Public Company Limited • Managing Director, Sila Enterprise Company Limited

**6. Chitchai Thaveepanich, 51 Years Old**  
**Vice President-Human Resources**  
**& Corporate Communication**

**Education** • Master Degree in Business Administration, Western Michigan University, U.S.A.

**Current position** • Vice President-Human Resources & Corporate Communication, Padaeng Industry Public Company Limited

**Working experience** • Assistant Vice President Human Resources & Corporate Administration, Padaeng Industry Public Company Limited

**7. Chaya Hasdiseve, 50 Years Old**  
**Vice President – Procurement**

**Education** • Master Degree of Management in Finance, Sasin Graduate Institute of Business Administration, Chulalongkorn University • Master Degree of Agricultural Economics Sciences, Kasetsart University

**Training** • London Metal Exchange 2001 • Zinc College 2000

**Current position** • Vice President - Procurement, Padaeng Industry Public Company Limited

**Working experience** • Assistant Vice President - Procurement, Padaeng Industry Public Company Limited

**8. Siam Dowmanee, 56 Years Old**  
**Vice President - Process & Technology**  
**Innovation**

**Education** • Master Degree in Business Administration, Burapha University • Bachelor Degree of Engineering in Mechanics, Chulalongkorn University

**Current position** • Vice President - Process & Technology Innovation, Padaeng Industry Public Company Limited

**Working experience** • Vice President - Technical Service, Padaeng Industry Public Company Limited • Vice President - Operations, Calcine Plant, Padaeng Industry Public Company Limited

**9. Unnop Tungkananukulchai, 55 Years Old**  
**Vice President – Regulatory Affairs**

**Education** • Master of Public and Private Management, National Institute of Development Administration (NIDA)

**Current position** • Vice President - Regulatory Affairs, Padaeng Industry Public Company Limited

**Working experience** • Senior Manager - Central Personnel, Padaeng Industry Public Company Limited



**10. Pothong Pipatpaiboon, 57 Years Old****Vice President - Maintenance**

**Education** • Bachelor Degree in Industrial Education Science, concentrated on Electrical Technology, KingMongkut's Institute of Technology, North Bangkok Campus

**Current position** • Vice President - Maintenance, Padaeng Industry Public Company Limited

**Working experience** • Vice President - Attached to Zinc Plant Office, Padaeng Industry Public Company Limited

**11. Manoch Jaroonvuthitham, 47 Years Old****Vice President - Production**

**Education** • Bachelor Degree of Engineering in Metallurgy, Chulalongkorn University

**Training** • Training for Zinc conversion project, Germany • International Symposium on Lead and Zinc Processing, South Africa • Zinc College 2010, Canada

**Current position** • Vice President - Production, Padaeng Industry Public Company Limited

**Working experience** • Senior Manager - Leaching & Purification, Padaeng Industry Public Company Limited

**12. Woratip Rerkpiboon, 47 Years Old****Vice President - Finance, Accounting & IT**

**Education** • Master Degree in Business Administration (Financial Management), National Institute of Development Administration (NIDA)

**Current position** • Vice President - Finance, Accounting & IT, Padaeng Industry Public Company Limited

**Working experience** • Senior Manager - Treasury, Padaeng Industry Public Company Limited

**13. Surin Tanticharoenkiat, 55 Years Old****Vice President - Internal Audit and Company Secretary**

**Education** • Ph.D. in Materials Engineering, Auburn University, U.S.A. • Master Degree in Business Administration, Auburn University, U.S.A. • Master Degree in Metallurgy, Lehigh University, U.S.A. • Master Degree in Mechanical Engineering, Auburn

University, U.S.A. • Bachelor Degree in Metallurgical Engineering, Chulalongkorn University

**Training** • Thai Institute of Directors Association - Director Certification Program, Class 33/2003 - Effective Minutes Taking • Faculty of Law, Chulalongkorn University - Laws and Practices for Company Secretary

**Current position** • Vice President - Internal Audit, Padaeng Industry Public Company Limited Company Secretary, Padaeng Industry Public Company Limited

**Working experience** • Assistant Vice President - Internal Audit, Padaeng Industry Public Company Limited • Assistant Vice President - Technical Support, Padaeng Industry Public Company Limited

**Selection of company directors and executives**

The Company has set up the Nomination and Remuneration Committee. The committee recommends new nominees to the Board to fill positions made vacant by directors who complete their terms or resign.

Of all the Company's directors, three are representatives from the main shareholders. Bali Ventures Limited of UAE holds 2 seats and the Ministry of Finance holds 1 seat on the Board of Directors.

**Selection of independent directors**

The Nomination and Remuneration Committee will consider from the list of candidates and nominate person/s with proper qualification, experiences which beneficial to the Company.

The appointment of a director requires a majority vote from the eligible voting shareholders present at the shareholders' meeting. Voting shall be according to the following guidelines:

1. Each shareholder shall have one vote for each share.
2. Each shareholder must exercise all the votes he has under item (1) to elect one or several persons to be directors but cannot divide his votes to any person particularly.

3. The candidates shall be ranked in order descending from the highest number of votes received to the lowest, and shall be elected as directors equivalent to the number of directors who are to be elected.

4. If there is a tie in the last to be elected and this exceeds the said number of directors, the presiding Chairman shall have an additional casting vote.

## Board of Directors (resigned during the year)

**Vinij Ongnognun**, 63 Years Old

**Education** • Bachelor Degree in Mechanical Engineering, Chulalongkorn University

**Certificate** • Five-Year Course in Pulp and Paper Management, University of Maine, U.S.A.

**Training** • Strategic Marketing Management, Harvard University, U.S.A. • Leading Change and Innovation, University of Chicago, U.S.A. • Thai Institute of Directors Association - Director Certification Program (DCP 58/2005)

**Working experience** • Managing Director, Padaeng Industry Public Company Limited • Deputy Managing Director, Padaeng Industry Public Company Limited • Managing Director: Thai Paper Company Limited/Siam Cellulose Company Limited/Thai Union Paper Public Company Limited • Director, Phoenix Pulp and Paper Public Company Limited • Managing Director: Siam Kraft Industry Company Limited/Thai Kraft Paper Industry Company Limited/Thai Union Paper Industry Company Limited • Audit Director, United Pulp and Paper Co., Inc. • Executive Director, Thai Cane Paper Public Company Limited • Director, the Federation of Thai Industries • Vice President, the Thai Pulp and Paper Industries Association

**Professional license** • Chartered Engineer, Mechanical Engineering, Council of Engineers (Kor Vor 567)

**Vorapak Tanyawong**, 48 Years old

**Education** • MBA in Finance, University of Missouri, Kansas City, U.S.A. • BS in Management Science & Computer System, Oklahoma State • University, Stillwater, U.S.A.

**Training** • Thai Institute of Directors Association - Director Certification Program 2011

**Current position** • Managing Director, Krungthai Bank Public Company Limited

**Working experience** • Chairman & CEO, Finansia Capital Limited • Director, Padaeng Industry Public Company Limited • Director, PTT Exploration and Production Public Company Limited • Fellow Director of Energy Fund Administration Institute's Committee • Director, Finansia Public Company Limited • Director, Finansia Capital Limited • Chairman & CEO, Finansia Securities Limited • Senior Executive Vice President, Siam Commercial Bank Plc. • Senior Country Officer & Co-Head of Investment Banking, JP Morgan Chase Thailand • Managing Director & Co-Head of Global Markets, • Deutsche Bank Thailand • Bank of America, Thailand, last post as Country Manager • Leasing Specialist, IBM Thailand

## Remuneration for directors and executives

### 1. In the form of cash

In the year 2012 the Company paid a total of Baht 3,603,039.90 to Directors, 6 Strategic Committee Members, 3 Audit Committee Members and 4 Nomination and Remuneration Committee Members as director's fees and director's remuneration:

## Shareholders and Management

Directors	Position	Remuneration (Baht) <sup>3)</sup>	Director bonus for 2012 (Baht) <sup>1)</sup>
1. Mr. Arsa Sarasin	Chairman	-	- <sup>2)</sup>
2. Mr. Francis Vanbellen (Since April 26, 2012)	Director	-	-
	Managing Director	-	
	Strategic Committee Member	-	
3. Mr. Ahmad Bin Fahad	Director	275,000.00	- <sup>2)</sup>
	Strategic Committee Member	100,000.00	
	Nomination and Remuneration Committee Member	40,000.00	
4. Mr. Ravi Gidwani	Director	275,000.00	-
	Strategic Committee Member	80,000.00	
5. Mr. Surapol Supradit	Director	275,000.00	
	Strategic Committee Member	100,000.00	
6. Mr. Paron Israsena	Independent Director	275,000.00	-
	Audit Committee Member	200,000.00	
	Nomination and Remuneration Committee Chairman	60,000.00	
7. Mr. Karel Vinck	Independent Director	275,000.00	-
	Strategic Committee Member	100,000.00	
8. Mr. Vinai Vamvanij	Independent Director	275,000.00	-
	Audit Committee Chairman	200,000.00	
	Strategic Committee Member	20,000.00	
9. Mr. Aswin Kongsiri	Independent Director	260,000.00	-
	Audit Committee Member	200,000.00	
	Nomination and Remuneration Committee Member	40,000.00	
10. Mr. Pinit Vongmasa	Independent Director	275,000.00	-
	Strategic Committee Member	60,000.00	
	Nomination and Remuneration Committee Member	100,000.00	
11. Mr. Vorapak Tanyawong (From May 8 to November 8, 2012)	Director	118,039.90	-
12. Mr. Vinij Ongnegrnun (Until April 30, 2012)	Director	-	- <sup>2)</sup>
	Managing Director	-	
	Strategic Committee Member	-	-
		<b>3,603,039.90</b>	<b>-</b>

Note: 1) No bonus payments to the Board for 2012.

2) Executive Director's bonus are included in b) the Company bonus paid to the executives.

3) No remuneration payment for the executive directors.

b) The Company paid a total of Baht 41,776,000 to the 5 executives in the year 2012, as salaries and bonuses.

## 2. In Other Forms

The Company contributed to employees' provident fund savings, as a percentage of salary and period of time enrolled in the fund, ranging from 5 to 10%.

## Directors and management in subsidiary, affiliated and other companies

### Padaeng Properties Company Limited

1. Mr. Suwit Uawanichkul
2. Mr. Chitchai Thaveepanich
3. Mr. Unnop Tungkananukulchai
4. Ms. Woratip Rerkpiboon

### Puthep Company Limited

1. Mr. Geoff Kernick
2. Mr. Francis Vanbellen
3. Mr. Chaya Hasdiseve
4. Mr. Unnop Tungkananukulchai
5. Mr. Paul Scarr

### Padaeng Industry (Laos) Company Limited

1. Mr. Arsa Sarasin
2. Mr. Pinit Vongmasa
3. Mr. Tianchai Singhakarn
4. Mr. Chaya Hasdiseve
5. Mr. Unnop Tungkananukulchai

### Padaeng International Mining Company Limited

1. Mr. Chaya Hasdiseve
2. Ms. Woratip Rerkpiboon

### Ton Sangkasi Pte.Ltd.

(Incorporated in the Republic of Singapore)

1. Mr. Chaya Hasdiseve
2. Mr. Unnop Tungkananukulchai
3. Mr. Tianchai Singhakarn
4. Mr. Tay Yew Beng Peter

### Maesod Clean Energy Co., Ltd.

1. Mr. Arsa Sarasin
2. Mr. Francis Vanbellen
3. Mr. Unnop Tungkananukulchai
4. Mr. Isara Vongkusolkrit
5. Mr. Krisda Montienvichienchai
6. Mr. Pravrit Prakitsri
7. Mr. Chaiwat Damrongmonkolgul
8. Mr. Saran Harinsuta
9. Ms. Nitima Thepvanangkul

### South East Asia Metals Company Limited

1. Mr. Chaiyan Roojnawate
2. Mr. Chitchai Thaveepanich
3. Mr. Tianchai Singhakarn
4. Mr. Chaya Hasdiseve
5. Mr. Unnop Tungkananukulchai
6. Ms. Woratip Rerkpiboon

## Controlling the use of internal information

The Company has established a policy and guidelines to prevent executives and related persons from using internal company information for personal gains. Each quarter, a summary of changes of company holdings (if any) by directors and executives is submitted for review to monitor any use of inside information by executives.

## Internal control

Internal control is a crucial process in assisting the Company to achieve its goals. In this respect the Audit Committee is tasked to review the internal control systems, the internal audit activities, and risk management to ensure that these are strict and appropriate.

In 2012, the Audit Committee has assessed the system of internal control, the organization and external influencing factors, risk management, method of disseminating, communicating and monitoring information. In conclusion it was confirmed that the Company deploys an adequate system of internal control regarding transactions with major shareholders, directors, management and related persons, as well as internal control in other areas.

Below the judgment of the auditor, Mr. Chanchai Chaiprasit, Certified Public Accountant (Thailand) No. 3760, PricewaterhouseCoopers ABAS Ltd.:

*"In planning and performing our audit of the financial statements of Padaeng Industry Public Company Limited for the year ended December 31, 2012, we obtained an understanding of the internal control system in order to determine the nature, timing and extent of our audit procedures, for the purpose of expressing our opinion on the financial statements and not to provide an opinion on the internal control system.*

*The management of Padaeng Industry Public Company Limited are responsible for establishing and maintaining an internal control system to assist in achieving management's objective of ensuring, as far as practicable, the orderly and efficient conduct of its business, including adherence to management policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information.*

*Because of inherent limitations in any internal control system, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the internal control system to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.*

*However, after consideration of the internal control system, we noted no matters involving the internal control system and its operation that we consider to be material weaknesses under Thai Auditing Standard 400 "Risk assessments and internal control". Material weaknesses as defined in the Auditing Standard are the weaknesses in internal control that could have a material effect on the financial statements."*

## Related parties transactions

The Company's policy on related parties' transactions is based on the principles of fair trade, using global pricing as a reference. It is conducted in the best

interest of the Company. The internal audit department has from time to time carried out audits on related party transactions. Details can be found in note 24 of the 2012 financial statements.

## Legal disputes

As of December 31, 2012, the Company has been served notice of five complaints by 1,141 plaintiffs filed in the Bangkok Southern Civil Court. The plaintiffs are seeking compensation for a total amount of Baht 3,969 million from the Company, alleging that it caused cadmium contamination in the Mae Sod district of the Tak province. The Company has filed answers to all claims as ordered by the Court, but is confident that its strict environmental measures are in line with the regulations and requirements of the authorities. Management intends to defend the case vigorously. At this stage, the outcome of the proceedings is unknown and no contingent liability has been recorded.

October 26, 2010, the Company received letter from the Ministry of Industry ordering it to perform, within 180 days, an additional EHIA in compliance with instructions from the Ministry of Natural Resources and Environment. Failure to do so would cause the revocation of the latest mining concession. The Company objects to the legality of that order and lodged a Complaint by the Central Administrative Court in January 2011. The case is pending for the court consideration as at December 31, 2012.

## Auditor's fee

### 1. Audit fee

The Company and its subsidiaries have paid audit fees to audit companies, individual auditors or other businesses relating to the auditors and auditing companies during the previous fiscal year totaling Baht 3,366,000.

### 2. Non-audit fee

The Company and its subsidiaries have a general policy not to hire individual auditors or other businesses relating to its auditor for non-audit services.



# Overall Business Operations of the Company, its Subsidiary Companies and its Affiliated Companies

## The Company holds shares in the following groups of companies:

Name	Address	Nature of business	Number and types of all the shares issued and paid up			Number and types of all the shares held by the Company	
			No. of ordinary shares	Paid up capital (Baht)	Par value each (Baht)	No. of ordinary shares	% of Total shares
<b>(A) Padaeng Industry Public Company Limited</b>	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlomg Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Mining and smelting of zinc ore and concentrate as well as marketing of zinc metal and other by-products	226,000,000	2,260,000,000	10	-	-
<b>(B) Subsidiary &amp; affiliated companies</b>							
1. Padaeng Properties Company Limited	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlomg Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Land development and real estate	3,200,000	80,000,000	25	3,200,000	100.00
2. Puthep Company Limited	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlomg Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Prospecting and mining for copper and other base metals	4,606,286	285,589,732	62	2,349,206	51.00
3. Padaeng Industry (Laos) Company Limited	Mekong Apartment Room 2221, Luangphabang road, Vientiane, Lao PDR.	Prospecting and mining for base metals in Laos (Inactive)	USD 1,273,000	USD 1,273,000	-	-	100.00
4. Padaeng International Mining Company Limited	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlomg Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Investing in exploration and mine development project in Vietnam	1,000	100,000	100	1,000	100.00

Name	Address	Nature of business	Number and types of all the shares issued and paid up			Number and types of all the shares held by the Company	
			No. of ordinary shares	Paid up capital (Baht)	Par value each (Baht)	No. of ordinary shares	% of Total shares
5. South East Asia Metals Company Limited	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlong Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Trading various base metals and their by-products	2,000,000	200,000,000	100	2,000,000	100.00 (Held by Padaeng Properties Company Limited)
6. Ton Sangkasi Pte. Ltd.	19 Keppel Road #03-05 Jit Poh Building Singapore 089058	Mineral exploration, prospecting, mining and processing of base metals	USD 10,000	USD 10,000	USD 1	10,000	100.00
<b>(C) Joint venture companies</b>							
1. Maesod Clean Energy Company Limited	191/18-25 CTI Tower, 26-27 Floor, Ratchadaphisek road, Khlong Toei, Bangkok 10110 Tel. +66 (0) 2695-9499 Fax +66 (0) 2695-9495	Produce ethanol as an alternative energy source	67,500,000	675,000,000	10	23,625,000	35.00
<b>(D) Other companies</b>							
1. ASEAN Potash Mining Public Company Limited	16 Floor, SG Tower, 161/1 Soi Mahadlekluang 3, Rajdamri road, Lumpini, Pathumwan, Bangkok 10330 Tel. +66 (0) 2650-2711 Fax +66 (0) 2650-2715	Potash mining operation	28,057,973	1,466,337,300	100	100,100	0.68

## Registrar

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## Auditor

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## Legal advisor

- None -

## Advisor or contractor under management agreement

Mr. Padungdej Indralak  
Financial Advisor

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