Revitalize the Paper Business
“Advance to the next stage“

Nippon Paper Group
Agenda

Strengthen the cost competitiveness

1. Recover from the Earthquake
2. Revitalize the Paper business
   (1) Market outlook
   (2) Capacity reduction
   (3) Measures to strengthen the cost competitiveness

Mid-term outlook

3. Strengthen the overseas businesses
   (1) Development strategy
   (2) Growing paperboard businesses in China
4. Mid-term financial outlook
Recover from the Earthquake

(1). Three mills were hit by the Earthquake

Mitigated the negative impacts by supplying from the other mills both in Japan and abroad
1. Recover from the Earthquake
(2). Rise for the restoration

Quick actions and our Group-wide supports

<table>
<thead>
<tr>
<th>&lt; Restore the mills &gt;</th>
<th>&lt; Contribution to the affected region &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 12 Setup the Disaster Response Office</td>
<td>Mar 16 Started aid deliveries to the communities around the mill</td>
</tr>
<tr>
<td>14 Started aid deliveries</td>
<td>20 Decision of Total ¥100 million donation to the local governments where 3 affected mills exist</td>
</tr>
<tr>
<td>15 Started dispatching our staffs</td>
<td>Jun 23 Announced the electric power supplies to fulfill the needs of power companies (95 MW supply from our mills)</td>
</tr>
<tr>
<td>17 Setup the Disaster Recovery Division</td>
<td></td>
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</tbody>
</table>
1. Recover from the Earthquake

(3). Restore Nakoso & Iwanuma mill

Completely restored within 2 months

Nakoso mill
Apr 5, CMs stopped due to the afterquake
Apr 30, CM No.5 restarted
May 10, All CMs restarted

Iwanuma mill
Apr 11, PM3 restarted
Apr 23, PM4 restarted
May 7, PM2&CM30 restarted
May 11, PM1 restarted
(all machines restarted)

(PM: paper machine, CM: coating machine)
1. Recover from the Earthquake

(4). Restore Ishinomaki mill

Quickly recovering from the Tsunami disaster

Main Gate  In the Mill  Ground floor of PM8 House

Soon after the Tsunami

As of July
1. Recover from the Earthquake

(4). Restore Ishinomaki mill

No major damages to the paper machines themselves contrary to the incidental equipments downstairs

PM photos after the quake (as of April)

![Paper Machine 8](image1)

![Paper Machine N6](image2)
1. Recover from the Earthquake

(5). Resumption plan for Ishinomaki mill

The timing for the resumption of production and volumes will be decided based on market conditions

Permanent shutdown PM4, PM N3, and CM1

Minimize capex by utilizing unused equipments from other mills and machines to be shutdown

<table>
<thead>
<tr>
<th>Restart</th>
<th>Capacity (kt/y)</th>
<th>Paper Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM 8</td>
<td>Sep 2011</td>
<td>112 Groundwood</td>
</tr>
<tr>
<td>PM N4 &amp; CM4</td>
<td>Nov 2011</td>
<td>125 Coated</td>
</tr>
<tr>
<td>PM N5</td>
<td>2\textsuperscript{nd}H FY2011</td>
<td>150 Coated</td>
</tr>
<tr>
<td>PM N6</td>
<td>2\textsuperscript{nd}H FY2011</td>
<td>272 Coated</td>
</tr>
<tr>
<td>PM 7</td>
<td>1\textsuperscript{st}H FY2012</td>
<td>108 Copy paper</td>
</tr>
<tr>
<td>PM N2 &amp; CM2</td>
<td>1\textsuperscript{st}H FY2012</td>
<td>89 Coated</td>
</tr>
</tbody>
</table>
2. Revitalize the Paper business

(1). Market outlook (a) Paper demands in Japan

No bounceback from the steep demand decline after the Global Financial Crisis in 2008

Demand declined 17%, Coated 20%

Domestic demands = Domestic shipments + imports  
Source: Japan Paper Association
2. Revitalize the Paper business

(1). Market outlook (b) Capacity utilization in Japan

Despite the major capacity reduction in 2009 & 2010, improvement of operating rate is limited due to declined demand.

Source: Japan Paper Association
2. Revitalize the Paper business

(1) Market outlook (c) Demand forecasts by grades

**Demand declines gradually in mid. to long term**

In short term, expect a comeback from the interim decline after the quake

**Newsprint**
- Decrease of pages stopped, but the population drop continues and the reader rate expected to decline.
- Compared with the US, risks of steep demand drop is low (The number of pages of Japanese newspaper is originally smaller. In addition, its revenue dependence on advertising is relatively low).

<table>
<thead>
<tr>
<th>Growth rate outlook (annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1.0〜 - 1.5%</td>
</tr>
</tbody>
</table>

**Printing paper**
- Electronic media grows in publishing, but usage for textbook and others are relatively stable.
- Usage for printing will decrease slowly.

<table>
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<th>Growth rate outlook (annual)</th>
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<tbody>
<tr>
<td>- 1.5〜 - 2.5%</td>
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</table>

**Business communication paper**
- Copy paper demand will be stable. Users’ trends for savings brings the demand down, but the number of printout increases. Copy paper continues to substitute other paper (e.g. business form, carbonless).
- Business form and carbonless will decrease gradually at 2 to 3% p.a..
- Thermal paper grows moderately.
2. Revitalize the Paper business

(2). Targets for the revitalization plan

(a) Realize the ideal capacity operating rate based on slowing demand

Reduction of the production capacity is needed regardless of the Earthquake

<table>
<thead>
<tr>
<th>Product Group</th>
<th>Product Type</th>
<th>Production Capacity</th>
<th>Production Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsprint</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncoated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*:Newsprint, uncoated and others (excluding paperboard and some of specialty papers)
2. Revitalize the Paper business

(2). Targets for the revitalization plan

(b) Strengthen the cost competitiveness

Minimize the production costs, especially at Ishinomaki & Iwakuni mill

- Intensify the production at the cost competitive facilities
- Achieve the “Zero Oil Consumption” at mills (Ishinomaki, Iwakuni, and Yoshinaga mill)
- Seek the best balance of raw materials production/usage (Ishinomaki, Iwakuni, and Otake mill)
- Exit from unprofitable products
- Cost reduction by consolidating product grades
2. Revitalize the Paper business

(3). Revitalization plan  (a) Machine shutdown

15% reduction of the paper production capacity

(5,160 kt → 4,360 kt)

Shutdown 12 machines (8 Paper Machines and 4 Coating Machines)

All the shutdowns will be completed by the end of Sep. 2012

<table>
<thead>
<tr>
<th>Mill</th>
<th>PM</th>
<th>CM</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ishinomaki</td>
<td>2</td>
<td>1</td>
<td>- 240 k t</td>
</tr>
<tr>
<td>Iwanuma</td>
<td>1</td>
<td>1</td>
<td>- 100 kt</td>
</tr>
<tr>
<td>Fuji</td>
<td>4</td>
<td>1</td>
<td>- 430 kt</td>
</tr>
<tr>
<td>Iwakuni</td>
<td>1</td>
<td>1</td>
<td>- 10 kt</td>
</tr>
<tr>
<td>Yoshinaga</td>
<td>1</td>
<td></td>
<td>- 90 kt</td>
</tr>
<tr>
<td>(increase by products’ shift)</td>
<td></td>
<td></td>
<td>+ 70 kt</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8</td>
<td>4</td>
<td>- 800 kt</td>
</tr>
</tbody>
</table>
2. Revitalize the Paper business

(3). Revitalization plan  (b) Production transfer

Intensify the production at the cost competitive facilities

Productivity comparison among our Coating Machines

- **Fuji PM13 & CM33**
  - Capacity: 51
  - Personnel: 137 kt/y
  - 2,700 t/person

- **Iwanuma PM2& CM30**
  - Capacity: 51
  - Personnel: 108 kt/y
  - 2,100 t/person

- **Ishinomaki PM N6**
  - Capacity: 272 kt/y
  - Personnel: 35
  - Full-time Production
  - 7,800 t/person

(On-machine coating)
2. Revitalize the Paper business

(3). Revitalization plan (c) Improve pulp production efficiency

Reduce costs by improving pulp production efficiency

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Pulp supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ishinomaki mill:</td>
<td>- Increase self-production rate of pulp (96% to 100%) by shutting down PM4 and PM N3</td>
</tr>
<tr>
<td>650 kt/y</td>
<td></td>
</tr>
<tr>
<td>Iwakuni mill &amp; Otake mill:</td>
<td>- Shutdown the Kraft pulp production facility at Otake mill and supply from Iwakuni mill with much better productivity (The operating rate of Iwakuni’s facility rises from 87% to 100%)</td>
</tr>
<tr>
<td>130 kt/y</td>
<td></td>
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</table>

Iwakuni mill, Kraft Pulp production facility

Otake mill, Kraft Pulp production facility
2. Revitalize the Paper business

(3). Revitalization plan  (d) Energy cost reduction

Ishinomaki mill:  
Achieve “Zero Oil Consumption*”
An oil boiler stops together with PM4 and PM N3

Iwakuni mill: 
Biomass fuel (black liquor) usage increases by full-time Kraft pulp production

Yoshinaga mill: 
An oil boiler stops together with PM N2

Reduction of oil usage by mills

<table>
<thead>
<tr>
<th>Mill</th>
<th>Reduction in Oil Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ishinomaki</td>
<td>-12ML</td>
</tr>
<tr>
<td>Iwakuni</td>
<td>32ML</td>
</tr>
<tr>
<td>Yoshinaga</td>
<td>50ML</td>
</tr>
<tr>
<td>Fuji-Suzukawa</td>
<td>56ML</td>
</tr>
</tbody>
</table>

43% reduction of oil usage at Nippon Paper and Nippon Daishowa Paperboard mills

- 150ML/y

*No oil usage in normal paper production process
2. Revitalize the Paper business

(3). Revitalization plan (e) Other cost reduction measures

Sales related measures

Exit from unprofitable products (e.g. exports, glossy inkjet paper)
Consolidate product grades
(improving production efficiency by reducing 20% of product grades)

Reduction in workforce

Approx. reduction of 1,300 workers
(Approx. 850 regular and 450 contract employees – 15% of the workforce for the entire paper business)

Consider non-filling retiree positions, transferring to other Group companies, and outplacement assistance
2. Revitalize the Paper business

(4). Summary of the plan  (a) Operating rate

Realize the ideal capacity operating rate
2. Revitalize the Paper business

(4). Summary of the plan (b) Impacts on profit

- Variable costs reduction + ¥5.0 billion
- Fixed costs reduction + ¥8.5 billion
- Reduction in workforce + ¥10.0 billion
- Power supply and others + ¥1.5 billion

Gain ¥25.0b/y

Extraordinary losses ¥26.0b

Fixed assets impairment, retirement bonus
3. Strengthen the overseas businesses

(1). Development strategy

Focus on growing Asian and Oceanian market

Paperboard business in China - to penetrate into emerging market
Alliance with reliable partners - to decrease country risk
Strengthen wood procurement - to enhance long-term competitiveness
3. Strengthen the overseas businesses

(2) Paperboard in China (a) Market analysis

Demand growth has been over 10%/y, and is expected to be strong.
3. Strengthen the overseas businesses

(2). Paperboard in China (a) Market analysis

Two giants have already established strong position

The market requires capacity increase, but only a few strong players can manage it

Containerboard capacity of Major players in China (2009, kt/y)

3. Strengthen the overseas businesses

(2). Paperboard in China (b) About Lee & Man

Highly competitive in paperboard market

Sales: HK$14b, Net profit: HK$1.8b (FY2010)
Strong financial balance: D/E 0.55 (Mar.31 ‘2011)
Good productivity with large-scale machines
Low logistics costs due to its own dock at each plant

Capacity: 4,550 ÷ 6,550 Kt/y

- Chongqing Lee & Man (Chongqing Plant)
  Capacity: 400 ÷ 800 Kt/y
  Machine: 1 ÷ 2

- Jiangsu Lee & Man (Changshu Plant)
  Capacity: 1,570 Kt/y
  Machine: 4

- Jiangxi Lee & Man (under construction)
  Capacity: 0 ÷ 500 Kt/y
  Machine: 0 ÷ 1

- Donguang Lee & Man (Donguang Huangyong Plant)
  Capacity: 730 Kt/y
  Machine: 4

- Guangdong Lee & Man (Donguang Hongmei Plant)
  Capacity: 1,850 ÷ 2,950 Kt/y
  Machine: 4 ÷ 6
3. Strengthen the overseas businesses

(2). Paperboard in China (c) Alliance with Lee & Man

NPG makes Lee & Man an equity method affiliate

Acquired a 3.67% stake (August 5, approx. HK$ 937 million)
- our shareholding in L&M increased to 15.32%

Financial results of L&M (FY'03-'10)
3. Strengthen the overseas businesses

(2). Paperboard in China (d) Co-operation with Lee & Man

Building strong partnership

Technical tie-up
Support new whiteboard machine start-up (600kt/y, Donguang Hongmei plant)

Lee & Man
2 directors
12 engineers
+10 to be dispatched for new machine start-up

Operation management
Cost reduction
High-value-added products development

Experiences of state-of-the-art facilities
Access to Chinese paperboard market

NPG

Sales tie-up
Sale L&M products through NPG’s global sales network

Joint project
Pursue new project making the best use of both advantages

Partnership with L&M is a key to penetrate into the growing market
3. Strengthen the overseas businesses

(2). Paperboard in China

(e) Investment in YFY Cayman

YFY Cayman – the 2nd biggest corrugating box converter in China

- Split off from YFY (the biggest paper manufacturer in Taiwan)
- NPG acquired 20.35% of YFY Cayman’s shares (May 2010)
- Its plants are adjacent to large consumption areas in China, Taiwan and Vietnam

Corrugating box plants
China 12, Taiwan 5, Vietnam 3
Capacity: Approx. 1.4bm²/y

Containerboard plants
Taiwan 2, China 1
Capacity: Approx. 1.1mt/y
5. Mid-term financial outlook

(1). Operating income

FY2013 Operating Income target: ¥62.0 billion

Historical Trend

- 2011est.:
  - 2011: ¥44.7 billion
  - 2012: ¥32.8 billion
  - 2013: ¥20.0 billion
  - 2014: ¥35.6 billion

- 2013 target:
  - ¥62.0 billion
5. Mid-term financial outlook

(2). Variance analysis for operating income

FY2011 est. vs. FY2013 target

Increase by ¥32 billion
(¥30b △ ¥62b)

¥62b

- ¥30b

+10

+7

+25

Others (fixed costs)

Non-paper business

Recovery in paper sales

Paper business revitalizing

FY2011 est.

FY2013 est.
### 5. Mid-term financial outlook

#### (3). Depreciation, Capex and Debt

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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Depreciation</strong></td>
<td>¥135b</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capex</strong></td>
<td>¥95b</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interest bearing Debt</strong></td>
<td></td>
<td>¥705b</td>
<td>¥795b</td>
</tr>
<tr>
<td><strong>D/E Ratio</strong></td>
<td></td>
<td>x1.5</td>
<td>x1.9</td>
</tr>
</tbody>
</table>

Note: Interest bearing debt has been cut by ¥90b.
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