IMPACT OF LAND DISASTER TO THE CHANGE OF SPATIAL PLANNING AND ECONOMIC GROWTH (CASE STUDY: SIDOARJO, EAST JAVA, INDONESIA)

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INSPECTORATE GENERAL
MINISTRY OF AGRARIAN AND SPATIAL PLANNING /
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INDONESIA

Nandang A. TARUNA,
Setyo ANGGRAINI, Dian PUSPITASARI

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Recovery from disaster

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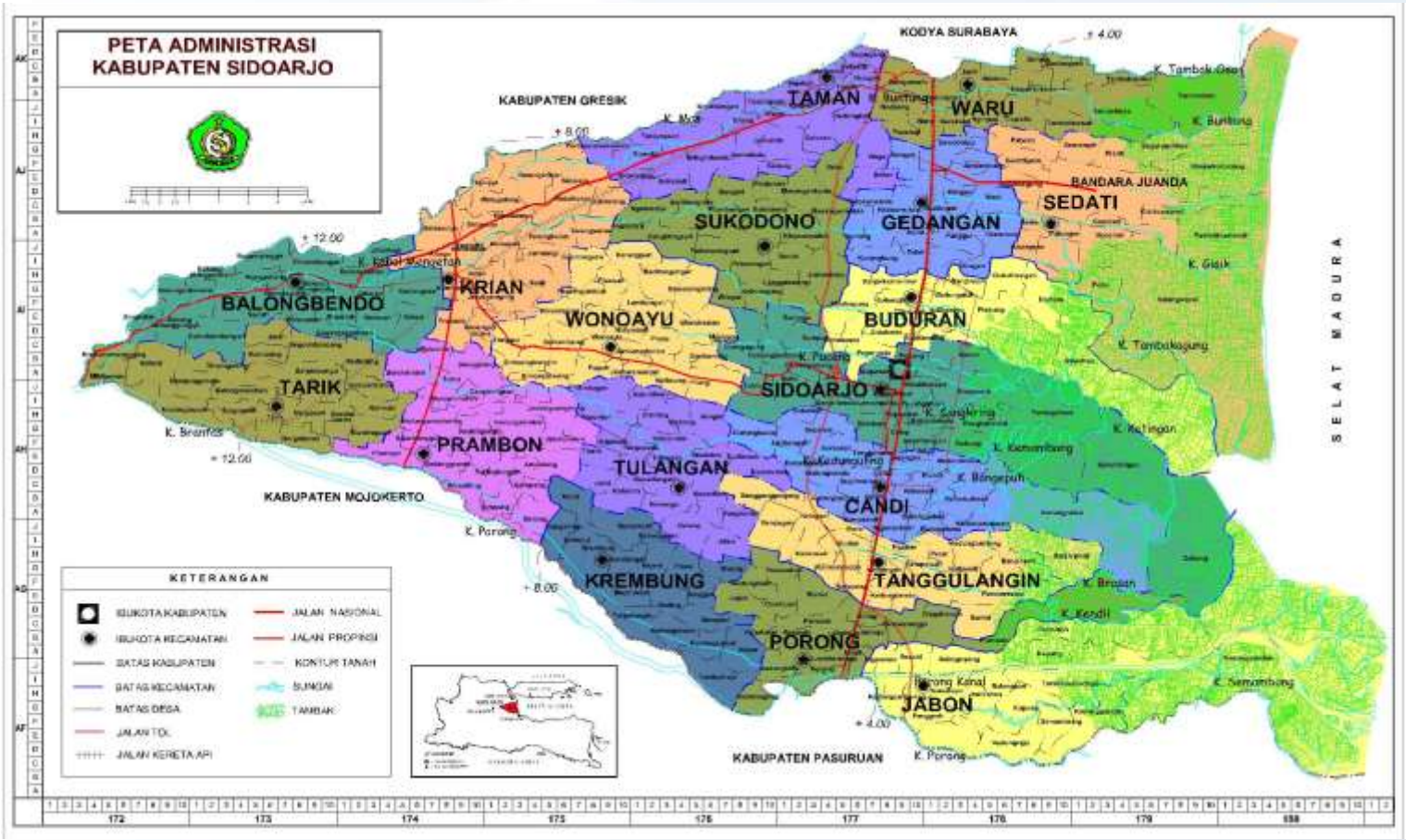
Points of Presentation

1. Sidoarjo, the geographical location and its potential;
2. Lapindo Brantas Inc and its drilling activities at Sidoarjo;
3. The hot mud disaster caused by negligence of Lapindo Brantas Inc;
4. The change of spatial planning before and after the disaster;
5. Impact of the disaster to the spatial planning and landright sertification;
6. Issue that will be carried out to fix damage and the urgency to increase the economic growth by the land value.

Map of Indonesia

Map of Sidoarjo



The Sub District of Sidoarjo

No	Name of sub District	Wide area (km^2)
1	Tarik	61,032
2	Prambon	68,576
3	Krembung	58,336
4	**Porong**	**64,390**
5	**Jabon**	**49,567**
6	**Tanggulangin**	**83,304**
7	Candi	145,155
8	Tulangan	84,582
9	Wonoayu	71,822
10	Sukodono	110,596
11	Sidoarjo	193,469
12	Buduran	91,931
13	Sedati	92,786
14	Waru	231,309
15	Gedangan	132,971
16	Taman	213,224
17	Krian	131,281
18	Balang Bendo	66,841

Drilling Area of Lapindo Brantas Inc

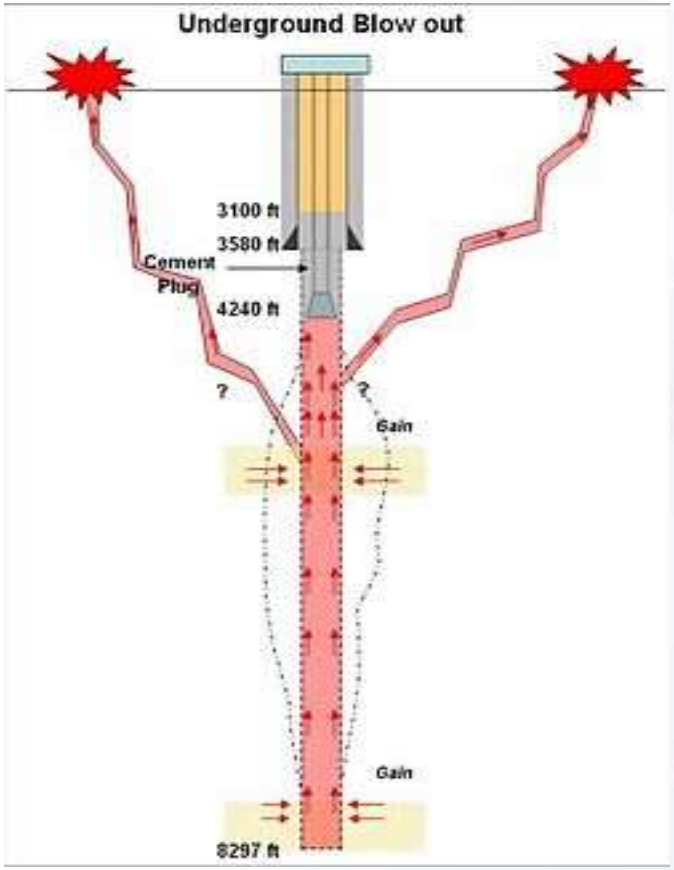
Lapindo Brantas Inc. (LBI) first established in 1996, the working area Brantas Block extent is divided into five areas with the two areas in the territory of the land (onshore) and three areas in the sea (offshore).

Area-1: District Kediri, Nganjuk and Jombang (land area)
Area-2: District Sidoarjo, Pasuruan and Mojokerto (land area)
Area-3: Probolinggo (sea area)
Area 4: Probolinggo and Situbondo (sea area)
Area 5: Situbondo (sea area)

Drilling Activities of Lapindo Brantas Inc

YEAR	DRILLING ACTIVITIES
1998	LBI drilling and development wells and build gas production station at the location Wunut - 1, in the village of Kedungboto, Porong , Sidoarjo
1999	LBI do first gas production on January 25, 1999
2004	Drilling wells Tanggulangin - 3 managed to find crude oil. Gas purchase agreement during the period of 2004-2005
2005	Lapindo conducting offshore exploration wells Bisma - 1, and managed to find a biogenic gas
2008 – 2009	With the discovery of gas in the field Tanggulangin.

The Hot Mud Disaster



- Mud 70^{0}C temperature by bringing gases and strong odors, gushes in siring Village, Porong, Sidoarjo district, East Java.
- blowouts caused by the outbreak of the formation of the well drilling depth of 9,000 feet or 2,743 meters from the bowels of the earth.
- Lapindo had been negligent installing casing, and failing to shut down the wellbore in the event of loss and kick, so that eventually the mud gushed.

The Change of Spatial Planning

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Data of ricefield that impact by the hot mud disaster :

No	Sub District and wide area (Ha)	Village	Area Impact by disaster (Ha)	Ricefield Area 2015 (Ha)
1	Jabon 8,099.8	Besuki Pejarakan	53.29 6.49	1,465
2	Porong 2.982.3	Glagaharum Plumbon	91.31 78.75	1,164
3	Tanggulangin 3.229	Ketapang Gempolsari Sentul Penatarsewu	1 59.1 56.71 76.43	1,428

Impact of the disaster to the welfare of the people

- Mudflow has inundated several villages / villages in Porong, Jabon, and Tanggulangin
- 90 hectares of rice fields and settlements can not be used and occupied again.
- Land and livestock were recorded affected by the mud, sugarcane land area of 25.61 ha in Renokenongo, Jatirejo and Kedungcangkring; rice land area of 172.39 ha in Siring, Renokenongo, Jatirejo, Kedungbendo, Sentul, Besuki and Pejarakan Jabon

Issue that will be carried out to fix damage and the urgency to increase the economic growth by the land value.

1. Restoring The Social And Economic Conditions.

In handling the social impact, the government, among other things, asked to complete an advance payment of cash and carry 20 per cent of the victims in four villages. After the finish payments to all citizens who enter the affected mud map (citizens Desa Gempolsari, Kalitengah, partly Kedungbendo). In regulation that for the payment of compensation outside the map of affected paid with money the State Budget.

2. Encourage Economic Growth;

As one of the districts in East Java province , where Sidoarjo located near Surabaya, in real terms can be used as one of the pillars of development and the development of the municipality of Surabaya in the implementation of development, but it relates to the distribution of development and improvement in the growth of economy, the Regional level II Sidoarjo regency is an area of considerable potential to be developed , it is supported by the existence of potential areas that support economic development performance

3. New Infrastructure Development;

Accelerated development of new infrastructure, replacing old infrastructure that Lapindo mud, based on more by economic motives, which returns the pulse of transport from/to the Port of Tanjung Perak to/from the major industrial areas in East Java, South and East. And in the name of 'public interest' that once again the people have to be sacrificed by means of forced displacement. State, again, was present as the main actor who legitimize a process that would not have happened if only the state never gave permission Lapindo to conduct oil and gas drilling in the area of dense habitation.

4. Landright Sertification;

Government's role in this case the Ministry of Agrarian and Spatial Planning / National Land Agency in accordance with its function in the task of overcoming the impact of the Sidoarjo mud namely the acceleration of land certification. Mitigation parcels affected by the hot mud is also a challenge in which not all affected land parcels held by the community has certified or mapped in cadastral. Utilization of satellite images before the disaster mud is helpful in mitigating the affected plot of the hot mud. It is associated with the ownership of the data collection either affected land parcels, to ensure that communities are entitled to receive compensation payments made by the government and Lapindo Brantas Inc. On the other hand people can utilize the land certificate to improve access to the banking sector in the improvement effort.

5. Geoturism Lusi Island;

Today the island is managed by the Sidoarjo Mud Mitigation Agency (BPLS). By BPLS already been reorganized environment by planting mangrove and fish cultivation are quite successful. On the island found also a very important ground water because the water is potable. Structuring a good environment can have a positive impact, such as barriers to erosion plants, aquaculture and mud islands can be developed as a Geotourism. Ministry of Maritime Affairs and Fisheries through the program by involving the local community to develop a system wanamina namely the preservation of mangrove vegetation and fish farming island Lusi.

6. Mud Raw Materials Industry

- These batteries take advantage of pasta they have generated from Lapindo mud. These batteries will survive for the paste to dry and then the battery will die. These batteries can burn for five hours non-stop
- Experiments have been done to take advantage of the Lapindo mud bricks to be used in the village Mojotamping, sub Ward, Mojokerto. From these first trials produced bricks that are smooth, shiny and strong, unlike other bricks.
- In the pilot, brought the sludge tank to the citizens of brick makers in the village Mojotamping, sub Ward, Mojokerto. The mud of the tank can be used to print 1.500 bricks. This amount is enough to make one house with a medium size.

THANK YOU

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