

Strengthening the capacity of pollution victims and civil society organizations to increase chemical safety in China

By Mao Da, Nature University

From 2013 to 2014, Nature University (also known as Green Beagle) cooperated with IPEN and Arnika on a European Union-funded project titled “Strengthening the capacity of pollution victims and civil society organizations to increase chemical safety in China” (China Chemical Safety Project).

The main task of this project is to intervene in 15 pollution cases around China and assist pollution victims to fight for their rights. These cases cover a wide range of geographical areas (12 provinces) and three big categories, *ie*: waste, heavy metals and chemicals.

The case interventions brought hope to pollution victims. For example, in Zhouxiang, Hubei Province, pollution victims living near a phosphate chemical plant were arrested by the local government and charged with the crime of extortion. NU mobilized lawyers to provide them with legal aid and journalists to report on the case, and finally had the victims released from prison.

The case interventions have also improved environmental governance in China. For example, in Guangzhou, NU staff launched an administrative litigation against the environmental protection bureau of

the city because the latter refused to release the pollution monitoring data and environmental impact assessment statement of the Likeng incinerator. Eventually, NU partly won the case and successfully pushed the bureau to partly release the requested information.

Additionally, the case interventions have enriched the public’s knowledge of China’s chemical pollution. For example, in Qiqihaer, Heilongjiang Province, NU staff collected sediment samples in a waste water dump that was created by a polyvinylchloride plant. The analysis showed that the sediments contain high levels of mercury, which violates the Chinese national standard. After NU reported this result together with other problems of the plant to the Ministry of Environmental Protection, the latter issued a serious warning to the plant and ordered it to change the situation.

By and large, the case interventions have strengthened NU’s team and the cooperation with its partners, because the more they intervene in pollution cases, the more real problems they will encounter and the braver they will be to find the solutions.

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Waste pipe from Dasheng chemical in Zhongxiang dumps water with high arsenic levels. Photo credit: Xie Xinyuan

BaliFokus in Indonesia is the IPEN Regional Hub for Southeast and East Asia. www.balifokus.asia / balifokus@balifokus.asia

In this region, IPEN has a total of 44 Participating Organizations in the following countries: Cambodia, China, Indonesia, Japan, Malaysia, Philippines, South Korea, Taiwan, Thailand and Vietnam.

Mercury pollution in an ASGM village of Indonesia and its health impact: Case Study Cisitu, Banten Province

By Dr. William Jossep, Medicuss, and Yuyun Ismawati, BaliFokus

This article is a brief update from a joint activity conducted by BaliFokus and the Medicuss Foundations in October 2014.

Cisitu is the territory of a sub-ethnic group of Kasepuhan Adat, located inside the Halimun-Salak National Park, Lebak Regency, Banten Province, and has a high average annual rainfall of about 3636 mm. The artisanal and small-scale gold mining (ASGM) practices in this village using mercury have been recorded since the 90s.

The gold ore from the mining sites located inside the forest within the territory of the tribe would be processed in the village using ball mills and mercury. More than 2000 units of ball mills are spread out between the settlements of two villages, Kujang Sari and Situ Mulya, and use a minimum 30 tonnes of mercury per year. The gold processing activity was conducted between the houses in the village, with a reckless handling of mercury waste. Most ball-mills units are lo-

cated near the rice field and ponds, where they grow their freshwater fish and local rice.

Mercury released into the air, soil, sediment, water, fish ponds, fish and rice pose a serious health risk for all workers and the villagers. The average of total mercury concentration in the air was almost 10 times the safe level (1000 nanogram/m³), ranging between 76.90 to 55814.47 nanogram/m³.

BaliFokus' laboratory results show that samples of several local rices, harvested from the community's wet and dry rice fields, as well as fish from some ponds showed high concentrations of mercury. The average mercury concentration in the fish, *Tilapia sp*, was 0.463 ppm (from 0.1250 ppm to a maximum of 1.325 ppm). Some rice samples taken from a community leader's rice barn, ranging from 2-year-old rice up to 11-year-old rice, show a high total mercury concentration. In the 2-year-old white rice sample, which was grown in a rice paddy located about 10 km from the village centre, the total mercury concentration was detected at 1186 ppb. The safe level reference of mercury in rice, according to the Indonesian standard, is 50 ppm, while the FAO-WHO reference standard is 30 ppb.

The total mercury ingested from the fish and rice consumption on the average is more than 40 times higher than the JECFA PTWI (1.6 µg/kg body weight per week). This community has a traditional custom whereby they have to be self-sufficient by consuming only the food that comes from their own fields, ponds or rivers, which has worsened the mercury contamination for them.

The reckless handling of mercury and wastes from the gold processing that has happened over the years has taken a toll. A joint survey was conducted in the village between October and December 2014 by BaliFokus and the Medicuss Foundations with a German expert, Dr. Stephan Bose-O'Reilly from the University Hospital Munich of LMU. Among the 132 people that were examined, we found 37 people (26.7%) that were suspected of suffering from severe mercury intoxication.

We conducted a physical and biological measurement of mercury level in hair and urine. The results have shown mercury as high as 24.36 ppm in hair and 47.70 µg/L in urine. We conducted the examination of urine sample and hair samples in 2 different laboratories and compared the results. The standard deviation is around 14%.



Breathtaking view of the rice fields and scenery. Photo credit: Medicuss

Eighteen patients were carefully assessed and we collected their detailed medical histories and basic health data information, and conducted a neurological examination. Pathological findings showed that more than 70% have sleep disturbances, subjective tremors, finger-to-nose tremors, ataxia of gait and dysdiadochokinesia (impaired ability to perform rapid, alternating movements). Numbness or headaches were additionally observed in a few patients. Moreover, several patients had very severe neurological symptoms. Our findings also revealed that those who suffer most are not miners, but their neighbours, families, and relatives, who are mostly farmers and housewives.

BaliFokus and the Medicuss Foundation have already reported these findings to the Ministry of Health, the National Human Rights Commission and the Presidential Office, and call on the Indonesian government to declare a public health emergency and develop measures to prevent further poisoning as well as conduct more assessments in other ASGM hotspots. Indonesia has already developed a National Action Plan on ASGM and is in the process to ratify the Minamata Convention on Mercury. These findings have alerted the Indonesian authorities and emphasises the need to develop health measures to help us prevent the new Minamata tragedy occurring in ASGM hotspots areas.

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A baby boy, 18 months old, born with microcephaly and cerebral palsy.



A child with dermatitis suspected to have been caused by exposure to mercury in the air.



A lady, 60, with stroke and numbness, lives next to a mercury bubble pond.



A former miner leader, 70, had a stroke, and now experiences numbness and paralyzation. He lives near a mercury bubble pond.

Four photos by Yuyun Ismawati/BaliFokus.

Consumers Association of Penang calls on the Malaysian government not to sign the TPPA

By Mageswari Sangaralingam, Research Officer, Consumers' Association of Penang

Since October 2010, Malaysia has been negotiating a Trans-Pacific

Partnership (TPP) Agreement with eleven countries, i.e. Australia, Brunei, Canada, Chile, Japan, Mexico, New Zealand, Peru, Singapore, United States of America and Vietnam.

The Consumers Association of Penang (CAP) has expressed its grave concern about provisions in the TPPA. Among other concerns, the

TPP would empower foreign firms to skirt domestic courts and directly sue the Malaysian government in international tribunals for taxpayer-funded monetary compensation if they deem that the domestic financial, health, environmental, land use and other laws put in place to regulate their investments have harmed their investments.

For example, if the Malaysian government decides to ban a chemical that is found to be harmful to public health and the environment or formulates new laws or makes amendments where there are currently gaps to safeguard public health and the environment, investors from a TPP country can sue the Malaysian government at an international tribunal for unlimited monetary compensation.

In addition to the problematic provisions in the TPPA that harm Malaysians and the environment, an analysis by CAP shows that the costs of the TPPA will far outweigh the benefits.

“Free Trade Agreements are a form of re-colonization. History reminds us that treaties between unequal nations cannot be fair. From colonial times to the present we see small nations pressured to concede to the demands of the powerful. With the TPP, we will be completely enslaved and this would be worse than colonisation”, says Mr S.M. Mohamed Idris, CAP President.

More about CAP’s call on the TPPA can be found [here](#).

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Leaders of Trans-Pacific Partnership member states and prospective member states at a TPP summit in 2010. Photo credit: [wikipedia](#)

The Elimination of Lead in Paint Campaign in Thailand: Updates

By *Nicha Rakpanichmanee, Ecological Alert and Recovery Thailand (EARTH)*

On October 22, 2014, Ecological Alert and Recovery – Thailand (EARTH) organized Thailand’s Lead Poisoning Prevention Day of Action. Held at the National Children’s Hospital, the day-long event included a press conference, policy roundtable discussions and exhibitions by government agencies, academics and civil society organizations in environmental protection and consumer rights.

There were a total of 193 participants, including policy makers, pediatricians, toxicologists, childcare center teachers, paint manufacturers, journalists and academics, among others. The opening ceremony was attended by high-ranking government officials, including the Vice Minister of Industry

and the Advisor to the Minister of Public Health, as well as the WHO representative in Thailand.

At this media event, EARTH released new data from a national survey of 129 small and medium Thai paint enterprises (SMEs) jointly designed by EARTH and the National Institute of Development Administration (NIDA). The study found that 95% of Thai paint SMEs are willing to remove lead from paint, but call on the government to issue a clear-cut policy, such as a mandatory standard, and implement strict enforcement measures to ensure compliance by all paint manufacturers.



Lead-free Kids Campaign in Bangkok, Oct 2014. Photo credit: [EARTH](#)

Thailand's Vice Minister of Industry Pramote Wittayasuk expressed support for the Global Alliance to Eliminate Lead Paint (GAELP). He ensured the audience that, "The Ministry of Industry will explore measures to assist manufacturers, especially small and medium enterprises, to enable them to adjust and produce a new era of lead-safe paints."

More updates about EARTH activities can be found on [EARTH's website](#) and [EARTH's Facebook page](#).

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Cambodian Organic Fragrant Rice Produced with System of Rice Intensification

By Cambodian Center for Study and Development in Agriculture (CEDAC)

<http://www.cedac.org.kh/?page=detail&ctype=article&id=498&lg=en>

Cambodian farmers grow more than 1,000 rice varieties, among them, several fragrant varieties. One of the most popular fragrant rice varieties produced for the market by Cambodian organic rice farmers supported by CEDAC is called Phka Malis. In Khmer language, this means beautiful garland of flowers, because of its delicate floral aroma. Besides Phka Malis, organic SRI farmers supported by CEDAC also grow Red Phka Malis, black sticky rice, and other selected premium rice varieties.

Organic Phka Malis is grown by small farmers, mainly from Kampong Chhnang, Kampong Speu and Takeo provinces. On average, a rice farmer in that area has

around 1 hectare of rice field. Around 50 percent of the field is used to grow organic jasmine for the market and for export. The rest of the field is cultivated for family consumption. Farmers can harvest between 2.5 to 3.5 tons/ha of certified organic fragrant rice, while very good SRI farmers can get more than 5 tons per ha. Generally, the yield of fragrant rice is around 25 percent lower than non-fragrant rice varieties. The higher prices for fragrant rice varieties are an important incentive for farmers.

These farmers use a set of growing methods called the System of Rice Intensification (SRI), which enables them to harvest more rice from their traditional varieties while using less water, less seed, less land, and their own organic fertilizers instead of purchased inorganic fertilizer. Farmers use straw, plant biomass, and animal dung to make compost to fertilize their soils. Also, green manure crops are planted before the wet season to enhance the health of the soil in a natural way. Farmers also use botanical pesticides to prevent and control pests. During harvest time, farmers select rice seeds from their best rice plants and choose the best panicles with well-developed grains. This practice helps to maintain the purity of seed and improve paddy productivity.

Some of the key SRI practices in rice cultivation of farmers supported by CEDAC can be summarized as follows:

1. Selecting good and healthy seeds for sowing in the nursery by hand.



Different varieties of fragrant rice.

2. Land preparation and leveling by using cattle and buffalo.
3. Making an upland (unflooded) nursery, well supplied with compost.
4. Using compost and green manure crops to improve the soil's fertility.
5. Transplanting young and healthy seedlings, one by one by hand, with careful treatment of the seedlings. The age of seedlings varies between 10 days to 20 days, depending on the availability of water and of labor.
6. The seedlings are planted in a square grid pattern, with inter-plant spacing between 20 to 30 cm, depending on the field conditions and the age of the seedlings.
7. Weeding (by hand), preferably with a simple mechanical weeder that aerates the soil.
8. Farmers maintain minimum water on the fields, just enough to ensure the effective growth of rice plants, maintaining alternating wet and dry field conditions. Continuously standing water will suffocate the roots and cause them to degenerate.

With support from CEDAC, farmers have organized themselves in

community-based producer associations. All local associations are linked into a national confederation.

CEDAC also supports the associations to develop their own Internal Control Systems (ICS). They have internal inspectors to control and ensure their organic production quality. They have to document every farm activity. The documentation and the farms are controlled by Internal Inspectors during the production, and later the data are crosschecked and verified by the ICS Supervisor.

BCS Öko-Garantie-GmbH from Germany is doing annual inspections and the organic certification. As a third party, it provides the organic certification adhering to European and US organic standards.

Fair TSA is responsible for the Fair Trade certification. Currently, there are more than 2,500 organic certified farmers supported by CEDAC, and they have the capacity to produce more than 4,000 tons of organic Phkar Malis for the market. The number of organic and fair-trade certified farmers is increasing from year to year.

The small-scale farmers are paid an organic premium for their rice of between 10 to 20 percent, which reflects its higher quality as well as the greater market demand. Additionally, a Social Development Fund (SDF) is being built up with 4.5 percent of the farm-gate price received for each kilo of paddy sold under the Fair Trade label being paid into the SDF. The farmers decide jointly within each community how to apply these funds

to improve their living conditions. They can reinvest in the rice cooperative or invest in communal halls, schools, roads, public sanitation, or environmental conservation activities.

Additionally, to reinforce SRI dissemination among farmers in Cambodia, CEDAC has initiated a SRI national prize open to all rice farmers in Cambodia. For more information about the prize and its winners, see: <http://www.cedac.org.kh>.

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IPEN's global network is comprised of more than 700 public interest, non-governmental organizations in 118 countries. Working in the international policy arena and in developing countries, with international offices in the US and Sweden, IPEN is coordinated via eight IPEN Regional Hub Offices in Africa, Asia, Central / Eastern Europe, Latin America and the Middle East. IPEN works to establish and implement safe chemicals policies and practices that protect human health and the environment around the world.

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