

## Report Exposes Widespread Dumping of Inefficient, Climate-Damaging Air Conditioners with Obsolete Refrigerants

### 报告揭露大量低能效高温室效应空调的倾销现状

*September 20, 2023, Jakarta* – A new report warns that multinational companies are exporting millions of inefficient air conditioners to Southeast Asia, taking advantage of loopholes in national laws and regulations. Because these units contain high global warming potential (GWP) refrigerants, this appliance dumping contributes to climate change, strains national energy grids, and burdens consumers with higher energy bills

2023年9月20日，雅加达 – 一份新报告指出，跨国公司正在利用国家法律法规的漏洞，向东南亚出口数百万台低能效空调。由于这些设备含有全球升温潜能值很高的制冷剂，这种电器倾销会加剧气候变化、增加国家能源网压力以及给消费者带来更高的能耗费用。

[This report](#) by [CLASP](#), with support from the [Institute for Governance & Sustainable Development](#) (IGSD), documents that five of the six Southeast Asian markets studied – Indonesia, Malaysia, the Philippines, Thailand, and Vietnam – are saturated with low-efficiency room air conditioners (ACs), while only Singapore has efficient ACs with less-damaging refrigerants. The inefficient ACs are produced by multinational companies that make high-efficiency models for sale in their home country markets.

这份[报告](#)由 [CLASP](#) 在[治理与可持续发展研究所](#)的支持下撰写完成。在报告研究的六个东南亚国家中，印度尼西亚、马来西亚、菲律宾、泰国和越南等五个国家市场上低能效房间空调占比较高，只有新加坡市场上提供了气候友好的高能效空调。值得一提的是，这些低能效空调是由跨国公司生产的，而这些公司也生产高能效空调以供本国市场销售。

With record heatwaves sweltering Southeast Asia and elsewhere each year, demand for residential air conditioning is projected to rise rapidly to support the lives and livelihoods of billions. The report shows that if all six countries prevented inefficient AC dumping, it would reduce cumulative emissions over 25 years by more than 1 billion metric tons of carbon dioxide. Over the same 25 years, the region would also save USD 148 billion cumulatively for consumers, exceeding the combined energy investment of the six analyzed countries over the last quarter century (USD 134 billion).

东南亚和其他地区每年都会遭受创纪录的热浪侵袭，预计房间空调需求将迅速增长，以支持数十亿人口的生活和生计。据本报告估算，如果上述六个国家都能禁止低能效空调进口，那么预计可在未来 25 年内累计减排 10 亿多吨二氧化碳。在这 25 年间，该地区还可为消费者节省累计 1,480 亿美元的支出。这一数字超出了这六个国家在过去 25 年间的能源投资总和（1,340 亿美元）。

### **The report finds:**

#### **报告指出：**

- The dominant multinational brands responsible for this dumping are headquartered in China, Japan, South Korea, and the United States. Since the majority of electricity in Southeast Asia is generated by fossil fuels, energy-intensive RACs contribute towards substantial indirect carbon emissions.
- 造成这种倾销的主要跨国品牌总部设在中国、日本、韩国和美国。由于东南亚的大部分电力供应都来源于化石燃料，因此高能耗的房间空调系统造成了大量的间接碳排放。
- In 2021, a notable 74% of total sales (6.2 million units) in the six markets were classified as low efficiency. However, sales of low-efficiency RACs vary by country. Indonesia and the Philippines are the most exposed to dated technology, with 97% and 78% of RACs, respectively, falling into this category, while in Vietnam, Malaysia,

and Thailand the number is around 60%. Singapore had the most efficient RAC market, with just 21% of total sales being low-efficiency models.

- 2021 年，六国市场总销量的 74%（620 万辆）为低能效空调。然而，低能效房间空调的比重各有别。印度尼西亚和菲律宾市场上落后技术的影响范围最广，分别有 97% 和 78% 的房间空调属于这一类别。而在越南、马来西亚和泰国，这一比重约为 60%。新加坡的房间空调器能效最高，低能效机型仅占总销量的 21%。
- Most RACs imported to Southeast Asia do not meet the applicable minimum energy performance standards (MEPS) of the export countries. This means these inefficient units cannot be sold in those domestic markets. Approximately 93% of RACs imported into Southeast Asia from China do not meet the efficiency requirements of China MEPS. 59% of RAC exports from South Korea to Southeast Asia and 21% of RAC exports from Japan to Southeast Asia are below the brands' home-country requirements.
- 大多数出口到东南亚的房间空调都不符合出口国的最低能效标准（MEPS）。这意味着这些低能效设备无法在出口国的国内市场销售。中国出口到东南亚的空调中，约有 93% 不符合中国的最低能效要求。韩国出口到东南亚的空调中有 59%，而从日本出口到东南亚的空调中有 21%，都低于品牌所在国的要求。
- The six Southeast Asian RAC markets use HFC refrigerants that have high GWPs. R-410A, an obsolete refrigerant scheduled for phasedown under the Montreal Protocol, has a [GWP](#) of 2,088, meaning it is over 2,000 times the potency of carbon dioxide. RACs containing R-410A accounted for 35% of Southeast Asia sales in 2021, measuring highest in Singapore (90%) and Thailand (66%).
- 六个东南亚国家都在使用高温室效应的氢氟碳化物制冷剂。R-410A 是一种根据《蒙特利尔议定书》计划逐步削减的制冷剂。其全球升温潜能值为 2,088，这意味着它的升温效力是二氧化碳的 2,000 多倍。2021 年，含有 R-410A 的房间空调占东南亚销量的 35%，其中新加坡（90%）和泰国（66%）的销量最高。

**Commenting on the research, Christine Egan, CEO of CLASP, said, “In the midst of a global climate emergency where high temperature records are broken annually, it is disappointing that the production and sale of affordable efficient ACs does not extend across all markets in Southeast Asia. This research shows the added financial savings and emission reductions that can come from stopping the influx of obsolete, energy-guzzling appliances that provide life-saving cooling to millions of people.”**

CLASP 首席执行官 Christine Egan 在评论这项研究报告时说：“全球气候正处于紧急状态，每年都有高温纪录被打破，但令人失望的是，东南亚市场上价格优惠的高能效空调尚未普及。这项研究表明，禁止高耗能电器涌入东南亚市场，可以在带来经济收益的同时减少排放，而这些电器也为数百万人提供了生存必需的制冷。”

**Tad Ferris, Senior Counsel at IGSD, cautioned, “This report warns of trade practices harmful to every living creature and ecosystem. The unchecked dumping of inefficient ACs using obsolete refrigerants is exacting an exorbitant toll in vulnerable Southeast Asian communities facing record-setting heat waves during the climate emergency. It is imperative to reverse this trajectory. This report underscores a suite of solutions that include collaborative commitments between multinational corporations and exporting and importing countries, to eliminate the high lifecycle cost of inefficient ACs with obsolete refrigerants.”**

治理与可持续发展研究所资深律师费达认为：“这份报告指出了一种对所有生物和生态系统都有害的贸易行为。这种倾销高能耗高温室效应空调的行为让面临热浪侵袭的东南亚气候脆弱地区不堪重负。当务之急是扭转这一局势。本报告提供了一整套解决方案。通过跨国公司，以及出口国和进口国的共同努力，来减少空调全生命周期内的能耗和温室气体排放。”

Drawing from the research, the report provides actionable recommendations to mitigate dumping. It emphasizes the urgency of implementing robust energy performance standards, fostering favorable

trade practices, and enforcing anti-environmental dumping policies. These steps are pivotal to ensure sustainable cooling access while reducing negative impacts on the environment and energy systems.

本报告总结了减少倾销的可行建议。其中包括及时提升能效标准、推广良性贸易惯例和实施反环境倾销政策。这些措施对于确保提供可持续制冷，同时减少对环境和能源系统的负面影响至关重要。