

*Africa Review Report on Chemicals
(Executive Summary)*



United Nations
Economic Commission for Africa

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I. Introduction

1. The United Nations General Assembly resolution 58/218 mandates United Nations Regional Commissions in collaboration with the secretariat of the United Nations Commission on Sustainable Development (CSD), regional and subregional organizations and bodies, as well as regional offices of funds, programmes, international finance and trade institutions and other organizations of the United Nations system, to organize multi-stakeholder Regional Implementation Meetings (RIMs) and to provide regional inputs into the work of the CSD. In this context, the United Nations Economic Commission for Africa (ECA) has been organizing RIMs in collaboration with partner organizations since 2003.

2. In preparation for the Eighteenth Session of the UN Commission on Sustainable Development (CSD-18), the Africa RIM was held in October 2009 under the auspices of the Sixth Session of the Committee on Food Security and Sustainable Development (CFSSD-6). ECA organized the RIM in collaboration with the United Nations Department of Economic and Social Affairs (UNDESA), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO) and other partners. The RIM reviewed progress in the implementation of Agenda 21 (A21), the Programme for Further Implementation of Agenda 21 (PFIA21) and the Johannesburg Plan of Implementation (JPOI) commitments relative to the thematic areas of Transport, Chemicals, Waste Management, Mining, and A Ten-Year Framework of Programmes on Sustainable Consumption and Production (SCP).

3. This executive summary draws from the Africa Review report on the same which was prepared under the leadership of the United Nations Industrial Development Organization (UNIDO) for the Africa Regional Implementation Meeting (RIM) for CSD-18. It provides an overview of trends and emerging issues on management of chemicals in Africa. It highlights progress and achievements, implementation challenges and constraints, as well as lessons learned; and the way forward, including policy measures and actions needed to accelerate implementation.

II. Major trends and emerging issues on use and management of chemicals in Africa

4. More and more African countries are importing chemicals and products containing chemicals, due to inter-alia, trade liberalization and creation of free trade industrial zones. Of particular concern is the lack of ability of many African countries

to assess and monitor the risks associated with trade in chemicals and chemicals contained in products, leading to concerns such as the importation into the continent of chemicals that would no longer be allowed in industrialized countries.

5. Chemical and petroleum industries currently account for 3 to 42 per cent of the GDP in African countries. In general however, apart from the major oil exporting countries (Angola, Egypt, the Libyan Arab Jamahiriya, Nigeria, and the Sudan, and emerging ones, Ghana and Uganda), the chemical industry still forms a relatively small share of GDP in most African countries.

6. Africa with its growing population is and will in the near future, be in urgent need of increasing agricultural production (for food and in some cases biofuel, fibre or pharmaceutical) and industrialization. This trend will undoubtedly increase the use of chemicals, particularly fertilizers and pesticides in the agricultural sector.

7. Africa is prone to insect-borne diseases (particularly malaria) that impact negatively on human health and insect-borne plant pests. These threats are likely to increase with climate change which is already showing some impacts around the continent. Consequently, greater use of chemicals is expected in order to control insects that transmit diseases to humans, plants and animals.

8. There is a trend towards urbanization across Africa that is predicted to continue into the future. Urbanization is generally associated with increased consumption of industrially-manufactured goods. This scenario will therefore, lead to increased consumption of household chemicals across many expanding and upcoming urban centres in Africa.

9. Cheap labour and resources and weak environmental management capacities, provide an economic opportunity for relocation of some industries from industrialized countries to Africa (e.g. tanneries, lead acid battery recycling, etc.). Whilst the contribution to economic development and employment generation is welcomed, there remains concern about the environmental and human health impacts of such relocated industries, especially in situations where the primary reason behind their relocation is to avoid complying with stringent environmental regulations in the countries of origin.

10. Access to safe drinking water and sanitation is still low in most parts of Africa. Of particular concern is the impact of discharge of chemicals in water bodies, thereby posing risks to communities relying on untreated water. Resolving this is an urgent need for development of Africa, but will undoubtedly also increase the demand for chemicals for water treatment.

11. The energy sector is also another area of concern with regard to safe handling of chemicals in Africa. Access to energy is still low in most parts of the continent, but this is expected to improve with economic growth. Power generation is still largely

dependent on fossil fuels, complemented by generally inefficient diesel generators. These are major sources of chemical discharges into the environment.

12. In order to capture opportunities for trade with industrialized countries, African countries will have to harmonize their trade and environmental policies, as overseas buyers increasingly demand evidence of environmental responsibility including sound management of chemicals, in part as a result of chemicals legislation coming into force through, for instance, the European Union's REACH Regulations. This presents an opportunity for supplying environmentally sound goods and services (e.g. organic produce) to niche markets at the national and international levels.

13. Around the continent, there is a trend towards subregional and regional integration, which demands increasing harmonization of policies and strategies for environmentally sound management of chemicals. In this context, institutions such as the New Partnership for Africa's Development (NEPAD), the African Union Commission (AUC), the African Ministerial Council on the Environment (AMCEN), the African Ministerial Conference on Water (AMCOW) could contribute to strengthening policies and strategies for implementation and enforcement of environmentally sound management of chemicals.

III. Actions taken and progress made

Sound management of chemicals throughout their lifecycle for sustainable development

15. Many African countries have put in place sectoral policies and institutions for environmentally sound management of chemicals. Examples of these include environmental management acts and the associated institutions that they establish. Such institutions include the National Environmental Management Act No. 107 of 1998 of South Africa, the National Environmental Management Council of Tanzania, the promulgation of Decree 58 of 30th December 1988 establishing the Federal Environmental Protection Agency (FEPA) of Nigeria, the Environmental Management and Coordination Act (1999) of Kenya that created National Environmental Management Authority, the institution that manages environmental affairs in Kenya, the National Environmental Management Authority of Uganda, the Environmental Protection Agency of Ghana, and the Egyptian Environmental Affairs Agency, among others.

16. The approach to environmental management by many of the above and other African institutions is so far, sector-wise. In case of chemicals management, most countries have separate legislation and institutions for pesticides, industrial and commercial chemicals, etc. The national secretariats established for the various

Multilateral Environmental Agreements (MEAs) on chemicals, for instance the Basel Convention Secretariat and the Stockholm Convention Secretariat have been key drivers for improved chemicals management.

17. Some progress is being made toward integration of sectoral policies on chemical management. An example in this regard is the Controlled Substances Regulations, 2007 (Legal Notice No.73 of 2007) of Kenya that seeks to control and regulate, through appropriate labelling (e.g., Controlled Substance-Not ozone friendly), the importation and exportation of certain hazardous chemicals used across several sectors. When fully implemented, the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) will provide a more integrated approach to chemicals management, not only in Africa, but globally. Some of the African countries that have started implementing GHS include the Gambia, Nigeria and Senegal. Other countries have made good progress with development of their national chemical profiles and subsequent strategies and action plans, even though means for their implementation are still to be secured (e.g. Morocco and South Africa).

18. National Cleaner Production Centres (NCPCs) support the introduction of better chemicals management practices and techniques in particular in the business sector. The NCPC Programme is a joint initiative of UNIDO and UNEP that since its inception in 1994, established Centres in 11 African countries (Egypt, Ethiopia, Kenya, Morocco, Mozambique, Rwanda, South Africa, the United Republic of Tanzania, Tunisia, Uganda and Zimbabwe). The level of activities and success varies between these centres in terms of national ownership and sustainability. Some NCPCs operate specific programmes for chemical industries (e.g. South Africa) or for chemical-intensive other sectors (for example tanneries in Ethiopia) whilst other NCPCs deliver dedicated services for environmentally sound management of chemicals, including new business models like chemical leasing, in different manufacturing sectors (e.g. Egypt and Morocco). In general however, CP centres still need to be upscaled and its network expanded to cover the whole continent. Moreover Cleaner Production needs to be mainstreamed into national development programmes as a way of fostering sustainable development. This aligns well with industry initiatives, for example from the global chemical manufacturing industry through its Responsible Care programme, which has been actively promoted and implemented in some African countries particularly South Africa.

19. Sound management of chemicals also requires some quantification of chemicals flow, especially of obsolete stocks of pesticides and other hazardous chemicals since their long term effects remain a concern. In Africa, the African Stockpiles Programme (ASP), a global programme supported by the Global Environment Facility (GEF), is active in this area. Prominent partners of the programme include the World Bank, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World-Wide Fund for Nature (WWF), the AU and NEPAD.

20. The objective of ASP is to clean up and safely dispose of all obsolete pesticide stocks in Africa, and to establish preventive measures to avoid future accumulation so as to protect human and environmental health. Implementation of the ASP is so far at its first phase, covering seven countries: Ethiopia, Mali, Morocco, Nigeria, South Africa, the United Republic of Tanzania and Tunisia. In each of these seven countries, there is some data pertaining to either stocks of obsolete pesticides or estimated amount of imports of the same; for instance, it is estimated that there are about 400 tonnes of obsolete pesticides in 76 sites in Mali, while the programme has been able to report that Ethiopia imports about 4,000 tonnes of pesticides annually.

21. Africa is also making good progress in phasing out leaded petrol. By 2004, more than half of petrol sold and consumed in the continent was unleaded, and that figure has probably since risen. The two initiatives that have been sensitizing African governments on the need to phase out leaded petrol are the World Bank's Clean Air Initiative for sub-Saharan Africa and UNEP's Partnership for Clean Fuels and Vehicles (PCFV). This has mostly been through conferences consisting of technical discussions and ministerial sessions.

22. However, these efforts in phasing out leaded petrol might prove futile in the long run in the fight against lead exposure in general if other sources of lead are not addressed. This is certainly the case currently where the focus has been in phasing out leaded petrol while taking no note of other sources of lead, notably leaded paints and toys that find their way into Africa from countries where such products are banned. Studies that can inform policy to regulate such products are only beginning to emerge in Africa.

23. Concerns of heavy metal poisoning are not restricted to lead only, but are also extended to other heavy metals like cadmium and mercury. The latter is especially of importance in Africa due to its extensive use in small scale and artisanal mining. The Global Mercury Project (GMP) was a six-country project implemented by UNIDO with GEF funding that introduced cleaner gold mining and extraction technologies in order to minimize or eliminate mercury releases and develop the capacity and regulatory mechanisms that will enable the sector to minimize negative environmental and human health aspects of mercury use in gold mining. Africa's GMP implementing countries were the Sudan, the United Republic of Tanzania and Zimbabwe.

Promotion of the ratification and implementation of international instruments on chemicals management

24. Most African countries have acceded to and ratified the four main international conventions on chemicals namely the Basel Convention; Stockholm Convention; Montreal Protocol on Ozone Depleting Substances; and Rotterdam Convention. The Stockholm Convention currently has 50 African countries that are parties to it; the Rotterdam Convention forty one; the Basel Convention forty eight; and the Montreal

Protocol fifty three. MEAs that deal with specific categories of chemicals, and have dedicated financial instruments like the Montreal Protocol and the Stockholm Convention, have advanced more rapidly into implementation in many African countries. This is reflected in the larger number of countries that have ratified these two instruments (nearly all countries in the case of the Montreal Protocol) as compared to the other two instruments, i.e. the Basel and Rotterdam Conventions.

25. However, domestication of the conventions and/or development of National Implementation Plans (NIPs) remain slow for these conventions, except for the Stockholm Convention where a number of parties have submitted their NIPs to the Stockholm Convention Secretariat. A contributing factor to this slow pace of domestication of MEAs on chemicals is their diversity and scope, which is beyond the immediate absorption and implementation capacity of many African countries. To this end, countries would benefit from harmonization and integration of the MEAs and provision of a process for risk-based prioritization of commitments at the national level.

26. Without actual domestication of an international convention and political will, mere accession to a convention cannot prevent issues such as illegal trafficking of chemicals in the continent. The illegal dumping/trading in toxic wastes may be cited for Nigeria when in 1988 about 3,880 tons of toxic and hazardous wastes were dumped in Koko, Bendel State (now Delta State) by an Italian Company. Similar incidents occurred sporadically in 1997, when 2,150 barrels of toxic fuels were distributed and sold through petrol stations; majorly in south-West States of Nigeria. In 2005 in Côte d'Ivoire, 530 tonnes of toxic waste was transferred from the vessel Probo Koala, a Panamanian owned ship, resulting in serious damage to human health and the environment. These incidents were committed despite the fact that Nigeria and Côte d'Ivoire are Parties to the Basel and Bamako Conventions, both of which restrict the trans-boundary movements of hazardous and other wastes.

27. An issue that comes up in these incidences is the need for active cooperation in areas such as comparative analysis of chemical wastes between international and national chemicals inspection units at entry and export points. This could help prevent the recurrence of such incidents. In general and in this context, there is an urgent need to invest in facilities and institutions for monitoring and evaluation of key chemicals in the environment as a basis for national, subregional and regional priority setting for chemicals management. This needs to be accompanied by proper mechanisms for information exchange among African countries, building upon existing initiatives like Pesticide Action Network (PAN) and Chemical Information Exchange Network (CIEN). The positive contribution of UNEP's African regional centres for chemical analysis and data generation is acknowledged in this regard.

Developing Strategic Approach to International Chemical

Management (SAICM) in Africa

28. Adopted by the International Conference on Chemicals Management (ICCM) on 6th February 2006 in Dubai, United Arab Emirates, the Strategic Approach to International Chemicals Management (SAICM) is a policy framework to foster the sound management of chemicals. Many African countries appreciate the integrated approach to chemicals management provided by SAICM, and have embarked on its implementation, with funding provided by the SAICM Quick Start Programme (QSP). It is however recognized that the scope and longevity of support through the QSP is in many countries insufficient for the effective kick-start of national implementation. Consideration should also be given to develop appropriate guidelines for SAICM implementation, taking due consideration of the existing national policies, institutions and chemicals use profile. More emphasis needs to be placed on developing appropriate formal institutional mechanisms and governance of SAICM implementation at national and subregional levels, including involvement of major stakeholders, in technical assistance provided for implementation of SAICM.

Encouraging partnerships including regional coordination and cooperation

29. There is in principle good potential for cooperation and coordination at the subregional level, but implementation support for MEAs and other technical assistance is typically directed at the national level, and therefore not conducive to achieving regional synergies.

30. Among the initiatives to support regional cooperation include the Basel Convention Regional Centres namely, the Regional Centre for the Arab States (Cairo), The Basel Convention Coordinating Regional Centre for the African Region (Ibadan, Nigeria), Regional Centre for French-Speaking Countries in Africa (Dakar, Senegal), and the Regional Centre for English-Speaking African Countries (Pretoria, South Africa). The Stockholm Convention is also in the process of nominating and instituting regional centres. Paragraph 4 of Article 12 of the Convention, calls for the establishment, as appropriate, of arrangements for the purpose of providing technical assistance and promoting the transfer of technology to developing country Parties and Parties with economies in transition relating to the implementation of the Convention. During first effectiveness evaluation of the Stockholm Convention, a regional coordinating mechanism was established by instituting six regional organization group members in all five UN regions, to coordinate the implementation of the global monitoring plan of POPs in their respective regions. Other opportunities for regional cooperation include development of multi-country SAICM projects.

31. More support is needed to foster involvement and cooperation of the private sector, in the implementation of environmentally sound chemicals management. The

private sector has to accept its responsibilities, and the public sector needs to develop mechanisms and capacities to work more collaboratively with user groups in the private sector and civil society.

IV. Implementation challenges and constraints

32. ***Need for coherent information on chemicals:*** Awareness of possible risks posed by chemicals is still low among major segments of the African population. This is further complicated by the general lack of reliable data and information on toxicity and safe use practices for chemicals. Access to such information in local languages is key to improving environmentally sound management of chemicals. There is also a need for streamlining chemical information exchange in the region to include development of national pollutant and transfer registers, as well as GHS Information exchange on toxic chemicals. Although by 1999 over 22 countries had established their National Pollutant Transfer Register globally, no significant progress had been made in Africa regarding establishment of national pollutant and transfer registers. The four African pilot countries (the Gambia, Nigeria, Senegal and South Africa) have made good progress with GHS implementation in particular in upstream production of chemicals. Challenges remain in the more informal downstream sector dominated by small and often unorganized businesses that produce chemical-containing consumer and industrial products.

33. ***Cooperation in development and transfer of technology of safe chemical substitutes and in development of capacity for their production:*** Progress in defining national, subregional, regional and international best available technologies/safe chemical alternatives has been too slow to address the chemicals management challenges in Africa. Some countries have made good progress particularly in integrated pest management practices. New initiatives are particularly needed to develop and manufacture best available technologies that are appropriate for and affordable to African nations. Under the Stockholm Convention, Africa has only a single institution nominated as a regional centre. All African Parties should investigate suitable institutions that can fill the gap of having regional centres capable of providing technical assistance. There is a need for greater collaboration and information exchange between Governments and relevant industries. The parties should strengthen collaboration with the south/south counterparts with a view to achieving synergy.

34. ***Harmonization of policies:*** African countries will have to harmonize their trade and environmental policies, in particular on chemicals management, to be able to enhance access to markets in industrialized countries. This would provide expanded opportunities for supplying environmentally sound goods and services such as organic produce into niche (inter)national markets.

35. ***Institutional and policy constraints and challenges:*** Most African countries still lack the institutions and facilities to monitor key chemicals in the environment, and hence develop appropriate control strategies to prevent adverse impacts on human health and the environment. The positive contribution of UNEP's African regional centres for chemical analysis and data generation is acknowledged.

36. Environmental regulation is a relatively young approach to waste and pollution control, with most environmental legislation having been promulgated in the past 20-30 years in developed countries, and even more recently in developing countries. African countries face a number of challenges in successfully implementing policy on safe chemical alternatives: lack of financial and human resources; insufficient political support; an unsupportive legal environment; lack of clarity regarding the role of government and the intention of policy, leading to a lack of ownership and to ineffective policy; and a lack of supporting data.

37. Africa has the opportunity to add value to its rich natural resources. This would however increase the use of chemicals and therefore require strong policies.

v. Lessons learned and the way forward

38. More support is needed for accessing environmentally sound technologies and safe chemicals. It is recognized that institutions of higher education and technical & research institutions could play a significant role in adopting and replicating environmentally sound technologies on chemicals.

39. Strong recommendation is also given for the need to integrate environmentally sound management of chemicals into national policies for economic growth and poverty reduction. Mechanisms need to be established to ensure safe chemicals management and use is being promoted as an integral part of agricultural modernization and sustainable industrial development.

40. Additionally, efforts will have to be made to accelerate research and development of alternatives to hazardous chemicals deployed in developing countries.

41. There is an urgent need for an integrated approach in implementing MEAs and other international regimes to help African countries improve environmentally sound management of chemicals. Compartmentalized MEAs have led to fragmented and sectoral implementation, which has become a challenge for national coordination and addressing national chemicals' management priorities.

42. The ongoing trend toward subregional and regional integration provides an opportunity for harmonization of policies, regulations and best practices for environmentally sound management of chemicals.

43. There is an urgent need to invest in facilities and institutions for monitoring and evaluating key chemicals in the environment as a basis for national, subregional and regional priority setting for chemicals management. This needs to be accompanied by proper mechanisms for information exchange among African countries, building upon existing initiatives like PAN and CIEN (chemical information exchange network).

44. Greater emphasis should be given to the involvement of the private sector, civil society, farmers and community groups, research and education institutions (including also cleaner production centres or related service providers), in the design and implementation of chemicals management policies and strategies.

45. Appropriate guidelines should be developed for SAICM implementation, taking into consideration existing national policies, institutions and chemicals use profile. More emphasis needs to be placed on developing appropriate formal institutional mechanisms and governance of SAICM implementation at national and subregional levels, including involvement of major stakeholders, in technical assistance provided for implementation of SAICM.

46. African countries expect continuous international support for sustainable industrial development and greening of their industry and economy. This support should be extended towards helping them achieve their commitments under the JPOI and MDGs, including through the development of their human, institutional and technical resources for achieving environmentally sound management of chemicals. In general, Africa expects that environmentally sound management of chemicals will become an integral element of the financial, technical and other support provided by its development partners, including under such mechanisms like the Monterrey Agreement.

47. Africa stands to benefit from enhanced compliance with provisions of the chemicals MEAs, in particular through developed countries banning and otherwise preventing the trade and/or transfer of obsolete technologies and hazardous wastes and chemicals. In addition, African countries call upon their development partners to assist with capacity-building for them to better control and enforce such trade and transfers.

48. Africa recognizes that its capacity to effectively participate and engage in negotiations on international chemicals and other environmental agreements is limited and expresses its concern that as a result thereof, the development needs and priorities of Africa may not have been addressed properly in many of the past negotiations. This is further complicated by proliferation of meetings under the various MEAs, for which preparations and participation in by African countries may be inadequate. There is therefore an urgent need for support by Africa's development partners in training African negotiators who can competently articulate its development and environmental agenda in such negotiations.

