



“Reduction Measures for Single Use Plastic Bags Consumption in Egypt”

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SCP National Action Plan – ANNEX

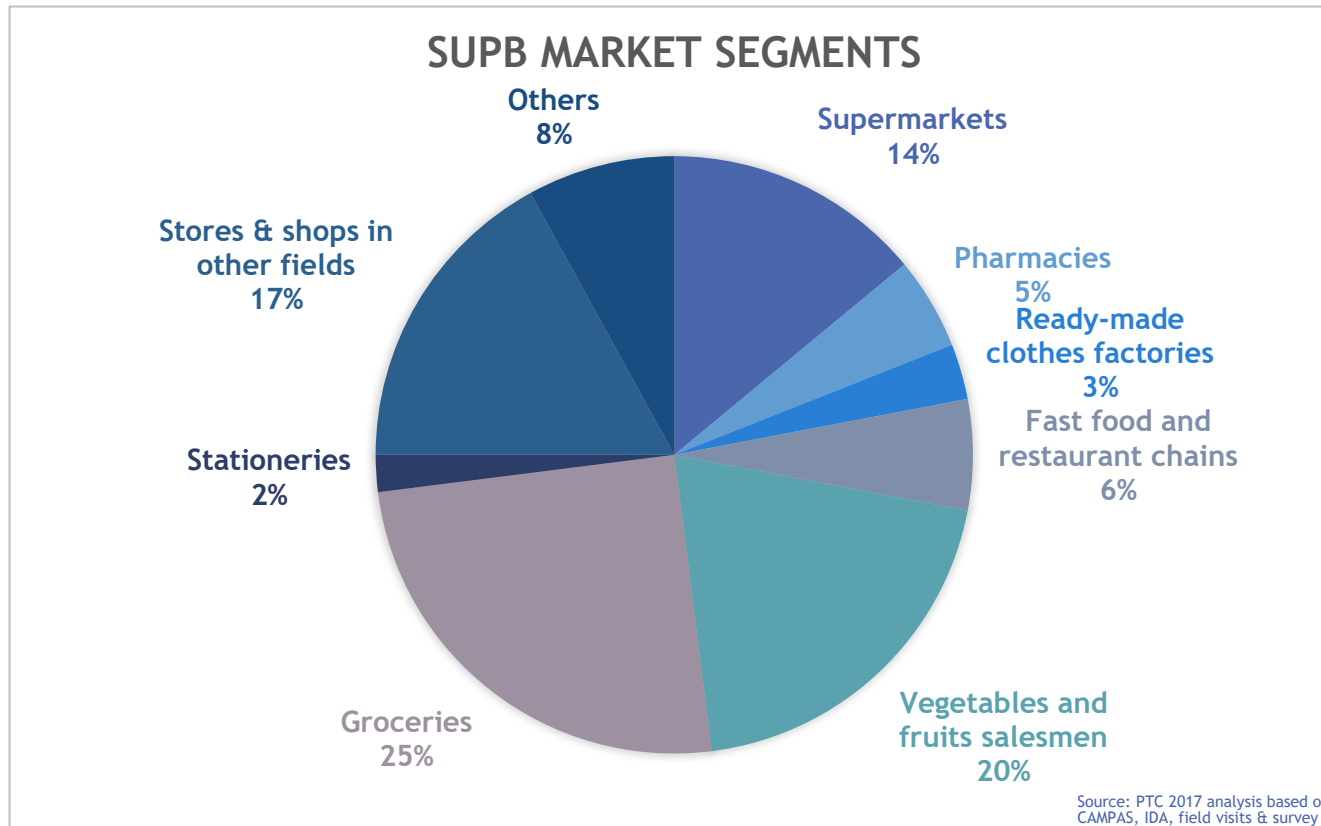


NATIONAL ACTION PLAN FOR SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP) IN EGYPT | 2015

ANNEX

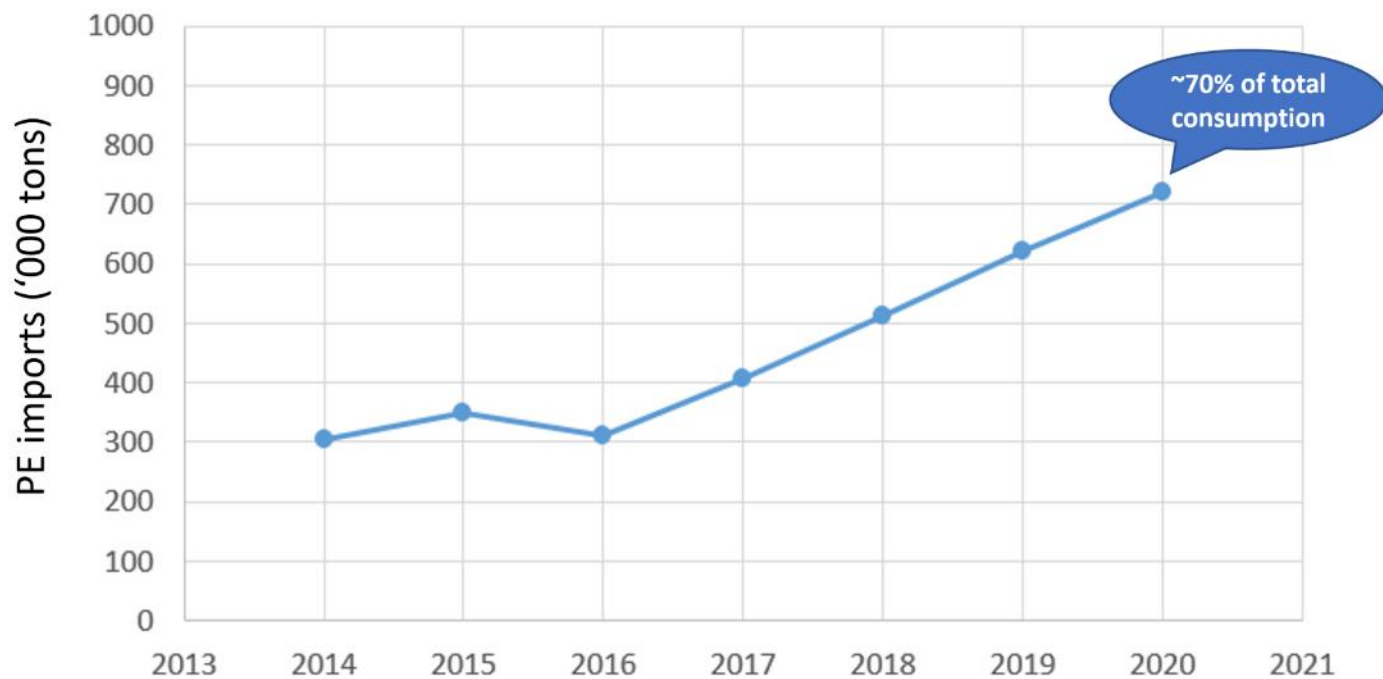


Egypt: Situation Analysis



Marine Pollution (+ River pollution + Littering) = *Main Environmental impact category of interest.*

Polyethelene & Egypt's import-dependence



Source: PTC 2020

Local industry overview

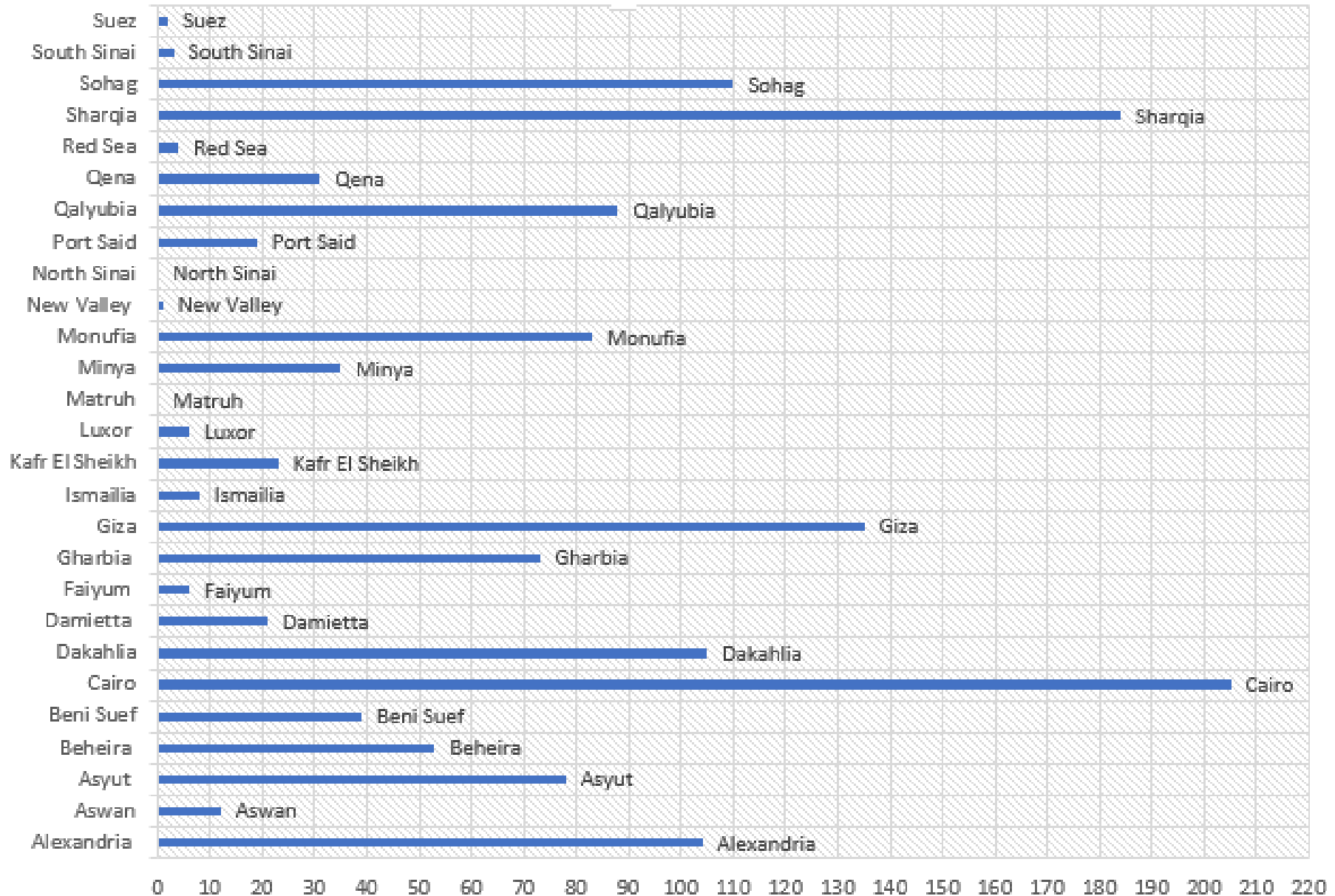
Current relevant standards:

- ▶ 1400 SUPB factories, but also informal sector >4 times
- ▶ Majority: Blown film extrusion technology.
- ▶ Egyptian Organization for Standardization (EOS) currently offering only HDPE bag specs:
 - ▶ Standard No. 3040/2005 “*Specifications of carrying plastic bags of carrying different pre-packed materials*” [HDPE only]
 - ▶ Standard No. 3041/2006 “*General tests of plastic bags of carrying different pre-packed materials*” concerned with testing these HDPE bags.
 - ▶ None yet for LDPE, HDPE-LDPE mix and PP, or others.

Example of major manufacturers of regular PE bags:

- Hymaplast
- Lasheen Group
- Roshdy Azmy Arteen
- Magd Plast

Plastic film producers in Egypt

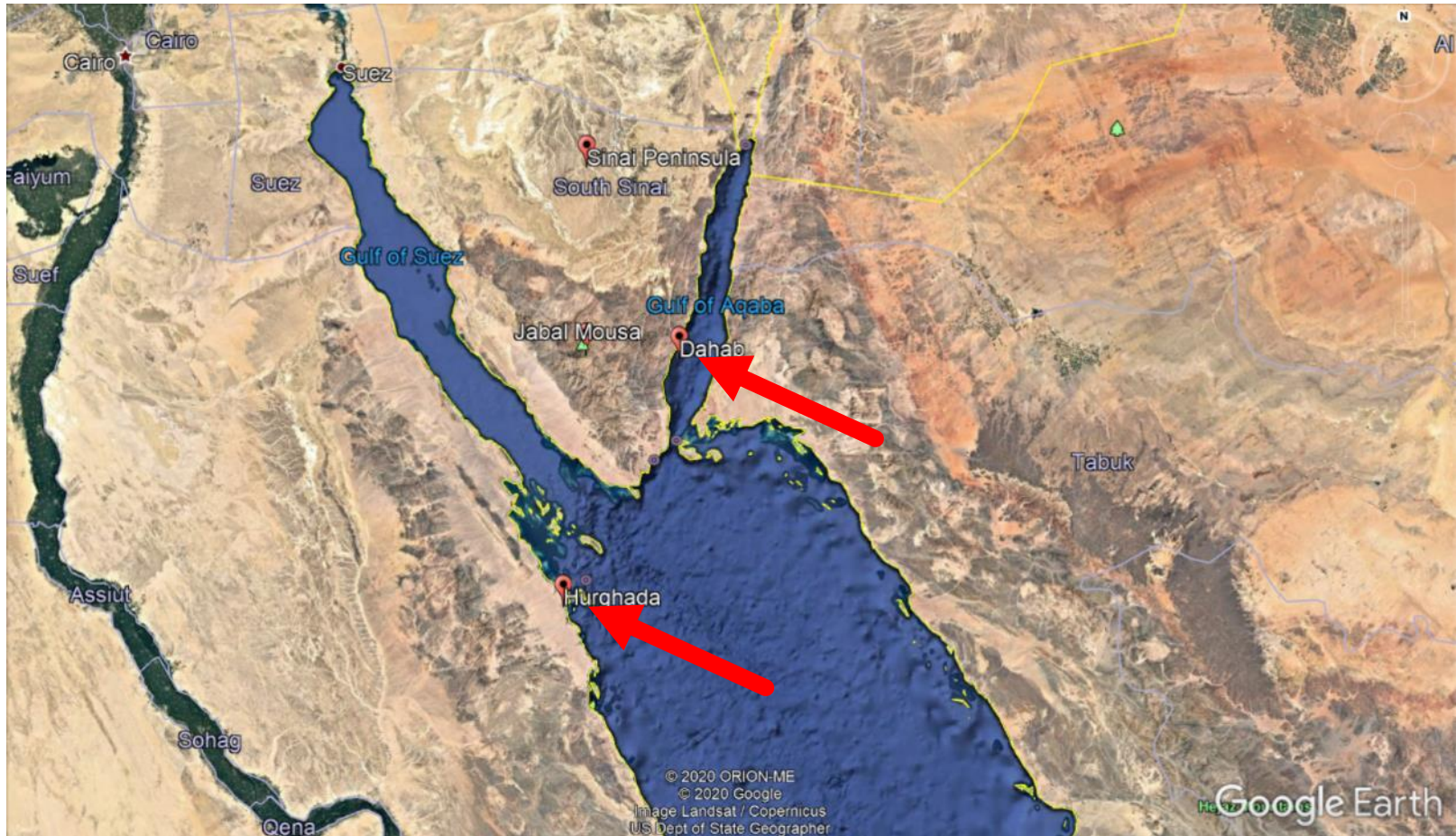


Relevant Laws, regulations, commitments

- ▶ **Barcelona Convention:** Egypt obligated to “take appropriate measures” to protect the *Mediterranean Sea* from pollution resulting from the disposal of waste from ships and aircraft and among these measures: the “Polluter pays principle”
- ▶ **Egyptian Environmental Law No. (4) of 1994** in Article (60) prohibits ships and floating vessels from throwing any harmful materials or wastes harmful to the aquatic environment (fine from 300,000 to 1,000,000 EGP)
- ▶ **Egyptian Waste Management Law No (202) of 2020** in Articles (27) and (76) regulate the SUPB in Egypt to minimize its consumption
- ▶ **Governorate-level Decrees** banning SUPB (and items)

Gaps in information: Activities addressing Marine litter to date are ad hoc initiatives with limited accumulation of information and knowledge and monitoring systems.

Case Studies: *Hurghada & Dahab*



Alternatives are conditional:

- Country mandates? = Created market (e.g. compostable bags in Europe)
- Multi-usability of alternative? (e.g. price per bag, or per use?)
- Consumer acceptance (e.g. fast-fashion culture? Aesthetic appeal?)

Bag type	Manufacturer examples	Price per bag
Disposable PE Bags (15-20micron)	Hymaplast Lasheen Group Roshdy Azmy Arteen Magd Plast	0.15 - 0.20 EGP
Paper Bags	Packtec Egypt NBC - National Bag Co. Akef Pack-tec Shady Pack	~0.40 EGP
Degradable, Oxo-degradable, "Oxo-biodegradable" Plastic bags	Al-Ahram for Plastic Production	13-15 % increase in the price of regular PE bag. i.e. 0.17 - 0.23 EGP
Certified Biodegradable (BD) plastic bags	None in Egypt	5-7 time increase in the cost of regular PE bag. i.e. 0.75 - 1.4 EGP (PTC estimates)
Woven PP Bags	Altawfiq for plastic and woven sacks Al-Ahram Group Lasheen for Plastic Industries Obourplast for Plastic Bags Delta Plast	~2 EGP (larger bags ~3 EGP)
Nonwoven PP Bags	Egypt CTMC Nonwovens Co. Ltd. Green Egypt for Nonwoven Fabrics Egyptian Fibers Co. Efco Gulsan Egypt Nonwoven Industries Spuntex Co. For Engineering	~2.0 EGP

Scan of biodegradable alternatives

Material	Supplier	Country	Generic Polymer and Certification	Market	Notes
M•vera™ B5011	BIO-FED, a Branch of Akro- Plastic GmbH*	Germany	Renewable resource-based sebacic acid-based polyamides from Castor Oil: Biocompounds with a share of renewable resources ranging from 30 to 100%. EN 13432, and certified OK compost INDUSTRIAL, OK compost HOME and OK biodegradable SOIL	Italy and other south European countries	Applications include compounds for the production of home-compostable films for starch-based bag applications (e.g. fruit and vegetable bags). Careful storage of required.
KE 1101™	KITEC	Egypt	An Additive - none disclosed	Planning for Egyptian market	Produced in India for KITEC, KITEC is an Egyptian firm. They are willing to discuss manufacturing locally in Egypt**.
PHBH™	Kaneka	Japan	PHA family: A copolymer of 3-hydroxybutyrate and 3-hydroxyhexanoate JBPA's GreenPla Certificatin & BioPla certification OK COMPOST - OK COMPOST HOME by Vincotte BPI Compostable in Industrial Facilities	Japan, Belgium, others +plans for Kenya	Material can be used in LDPE film lines; for HDPE some modification might be needed Adopted for JICA's Collaboration Program with the Private Sector for Disseminating Japanese Technology in Kenya; kick off meeting planned in April 2020.
D2W	Symphony	UK	Claimed degradation (metal salts) and claimed biodegradation-enabling additives. Refer to ASTM 6954 [Controversial, but allowed/mandated in some countries, e.g. KSA & UAE]	Middle East	Preliminary internal discussions in the Egyptian government between the Ministry of Industry and Environment concluded that D2W shall not be allowed in Egypt, but possibly allowed for export. The topic is otherwise still open for formalization of this position.
BioPBS	MCCP, A group company of Mitsubishi Chemicals	Japan	bio-based polybutylene succinate, derived from natural resources such as sugarcane, cassava and corn. US, BPI (certif. 10528580) Europe, EN13432 OK COMPOST - OK COMPOST HOME by Vincotte (certif. S.534) Japan, GreenPla (No.1103 & No.1104)	Japan, e.g. deal for shopping and wrapping bags made from MCC's BioPBS™ plant-derived and biodegradable polymer in CDG (garments), UK	Naturally compostable, without requiring a specialized composting facility (according to OK Compost Home certification developed by TUV Austria). No additional investment in current extrusion machines.

Example of certifications

- AVI Test Program with reference OK 1 edition E
- Including EN 13432 (09-2000) : « Packaging - Requirements for packaging recoverable through composting and biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging »

From 23 December 2015 till 23 December 2020

	<p>AIB-VINÇOTTE International s.a. / n.v. SAFETY, QUALITY, ENVIRONMENT Member of the Group AIB-VINÇOTTE Head office : Boulevard A. Reyers 80 - B-1030 Brussels / Belgium</p> <p>VINÇOTTE - CERTEST PRODUCTS Everest - Leuvensesteenweg 248 / B-1800 Vilvoorde / Belgium Tel. : +32(0)2 674.57.50 - Fax : +32(0)2 674.57.85 E-Mail : okcompost@vincotte.be</p>													
<p align="center">CERTIFICATE FOR AWARDING AND USE OF THE 'OK COMPOST' CONFORMITY MARK No. O 15-1756-A</p>														
<p align="center">Issued by AIB-VINÇOTTE International</p>														
<p>For the product(s) described hereafter :</p> <table border="0"> <tr> <td>Product Domain :</td> <td>Compostable Products</td> </tr> <tr> <td>Product Group :</td> <td>Raw materials</td> </tr> <tr> <td>Product Family :</td> <td>Bio Material</td> </tr> <tr> <td>Product Type :</td> <td>In form of Resin or Granulates</td> </tr> <tr> <td>Trade mark :</td> <td>AONILEX®, X331N</td> </tr> <tr> <td>Product description / Particularities :</td> <td>For film : maximum thickness of 116 µm Colour : translucent</td> </tr> </table>			Product Domain :	Compostable Products	Product Group :	Raw materials	Product Family :	Bio Material	Product Type :	In form of Resin or Granulates	Trade mark :	AONILEX®, X331N	Product description / Particularities :	For film : maximum thickness of 116 µm Colour : translucent
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Vincotte	<p>Conformity examination applied for by :</p> <p>KANEKA CORPORATION 5-1-1, Torikai-Nishi, Settu JPN- 5660072 Osaka JAPAN</p>													
<p>Criteria for certification :</p> <ul style="list-style-type: none"> • AVI Test Program with reference OK 1 edition E • Including EN 13432 (09-2000) : « Packaging - Requirements for packaging recoverable through composting and biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging » 														
<p>Validity of the certificate : From 23 December 2015 till 23 December 2020</p>														
<p>Conclusions of the examination : The products comply with the above mentioned certification criteria, as confirmed by the test report of AVI no 09/ 60359386/ 512513p.</p>														
<p>Applicable certification system : Type examination followed by supervision through verification tests on samples from the distributor's stocks or of the market. The conformity of the product is guaranteed by the procedures for awarding and use of the 'OK compost' conformity mark. This only applies for specimen bearing the 'OK compost' mark.</p>														
<p><i>This certificate is issued in English.</i></p>														
D 006 00 01	<p align="center">  L. TORDEUR Contract Manager </p>	<p align="center"> Brussels, 23 December 2015  For the Certification Committee Ph. DEWOLFS President of the Committee </p>												
<p>Annex : / 08-CERTOKC-e</p>														



- Stop Free Distribution
- Change Thickness Standard

Current Status

- ▶ Stop Free Distribution:
 - ▶ EPR Regulation has been issued
- ▶ Change Thickness Standard:
 - ▶ Changed to 50 micron - 2022/2023



Suggested Action Plan for the Awareness and Capacity Building Component of the Single-Use Plastic Bags Strategy in Egypt

Report by: CEDARE Egypt

Ms. Nehal ElKouesny

Reporting period: 02/02/2023 to 30/06/2024



FINANCIAL MECHANISMS TO REDUCE CONSUMPTION OF SINGLE-USE PLASTIC BAGS SCOPING STUDY IN THE EGYPTIAN CONTEXT



2024

SwitchMed II Project (Policy Component)
to accelerate the implementation of Sustainable Consumption and Production, Circular Economy and Blue Economy

Thank you.