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SERVICE HYDROGRAPHIQUE
ET OcéANOGRAPHIQUE
DE LA MARINE

DIRECTION DES MISSIONS
INSTITUTIONNELLES ET DES
RELATIONS INTERNATIONALES

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**FRENCH NATIONAL REPORT
TO THE 11TH MEETING OF THE SOUTH AFRICA AND ISLANDS
HYDROGRAPHIC COMMISSION MEETING**

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1. Hydrographic Service: General

Following up the approval of its new targets and performance contract for the 2013-2016 period last year, SHOM is pursuing the achievement of its various commitments based on France's National Maritime Strategy and Defence Policy. Besides, survey works are now being achieved according to the newly prioritized 4-years survey plan for all the waters under French jurisdiction (cf. annex I).

The current year's been particularly marked by the raise of the IHO-EU Network and the increasing cooperation between European hydrographic offices and the European Commission, which culminating point will be the issue of a call for tender related to a European coastal mapping project. Besides, the terms of reference of the IHO-EU Network Working Group have been approved by the IRCC (see IRCC CL04/2014). They outlines that the IHO-EU Network WG shall be composed of a representative from each RHC of which at least one EU/EEA Member State (MS) is a member. It is then recommended that this representative should be an IHO MS from the EU/EEA. Eventhough France has already been appointed as representative for the EAthC, in case of the SAIHC wishes to be represented in the IHO-EU Network WG and that no country has volunteered so far, France could eventually assume that responsibility.



Fig.1: meeting between European hydrographic offices and the European Commission (Amsterdam - June 25th 2014).

2. Surveys

2.1. Coverage of new surveys

No new surveys have been collected since the last conference. However, the deployment of BHO *Beautemps-Beaupré* initially announced in the region is currently under progress to conduct:

- surveys of French islands in the South Indian Ocean (Mayotte Longoni harbour, ...) ;
- surveys in the Union of the Comoros, more precisely in Moroni harbour;
- several hydrographic surveys in the North-Western part of Madagascar and in the vicinity of the island of Nosy Be (fig. 2).

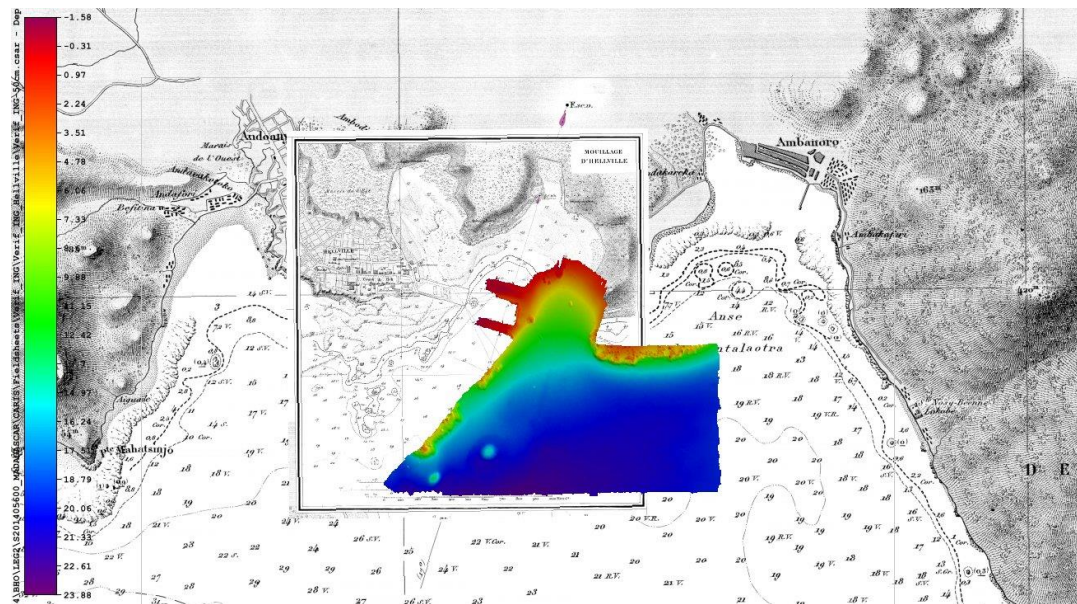


Fig.2: DTM generated from bathymetric data acquired in the beginning of July 2014, superimposed on the current chart. The significant shift noticeable between the two layers is due to geodetic differences.

2.2. LIDAR surveys

LIDAR surveys are achieved within the framework of Litto3D® program. This national programme, based on a partnership between SHOM and the French Geographic Institute (IGN), aims to provide a very high resolution Sea-Land digital terrain model (DTM) of metropolitan and overseas French coasts. Most of the French overseas coasts within the region have been entirely surveyed: Mayotte, Eparses Islands and La Réunion. Every Litto3D products issued are now downloadable for free from SHOM's data portal (data.shom.fr).

2.3. New technologies and /or equipment

NTR.

2.4. New ships

NTR.

2.5. Problems encountered

NTR.

3. New charts & updates

3.1. ENC's

On the 1st of June 2014, SHOM had produced some 414 ENC's at an approximate rate of 40 per year. In line with the WEND principles, France produces its small scale ENC cells as closely as possible to INT chart schemes. The French production plan is also compliant with IMO regulations on ECDIS mandatory carriage requirements.

At small and medium scales, the ENC coverage of all HSC lines in the SAIHC fulfils SOLAS requirements.

On the other hand, Mutsamudu harbour (Anjouan) access will be covered with a large scale chart scheduled in 2014-2015. The delay in fulfilling those requirements is due to the late availability of recent surveys data.

The SHOM ENC coverage of the SAIHC area is depicted in the chartlets hereafter.

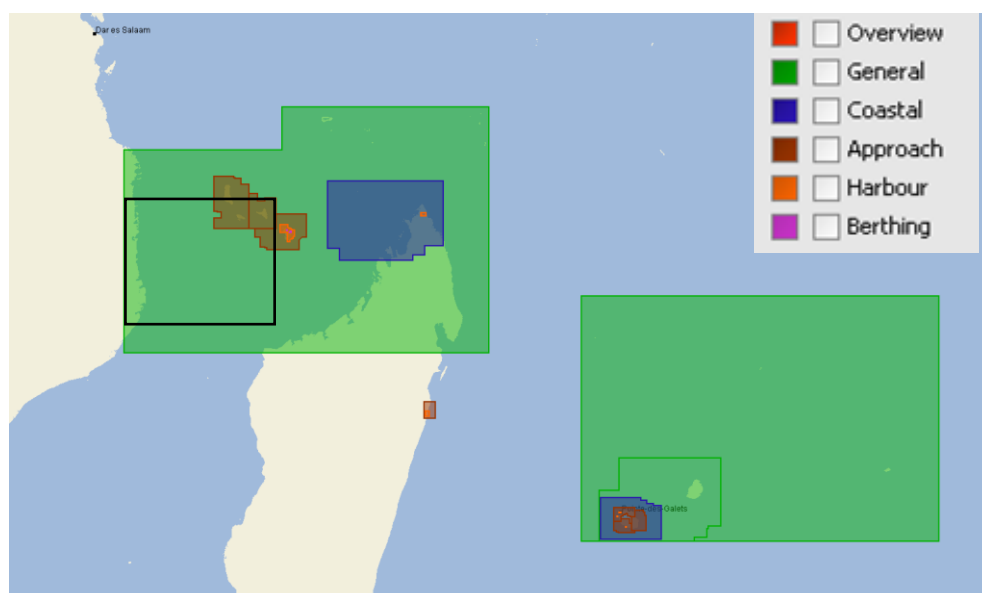


Fig.3: SHOM's ENC production within Region H.

Here are the ENC's produced since the last conference:

Number	New chart (NC) or new edition (NE)	Scale* 1:	Title
FR274880	NC	700 000	<i>De l'île de la Réunion à l'île Rodrigues et l'île</i>

			<i>Tromelin</i>
FR476820	NC	45 000	<i>Madagascar - Abords Nord de Toamasina</i>
FR476770	NC	90 000	<i>Ile de Mayotte</i>
FR576830	NC	12 000	<i>Madagascar - Port et passes de Toamasina</i>
FR576810	NC	15 000	<i>Madagascar - Baie d'Antsiranana</i>
FR374900	NC	180 000	<i>Archipel des Comores</i>

* The mentioned scale is the Standard Compilation Scale (CSCL) of the ENC

Here are the ENCs planned for 2014-2015:

Number	Scale 1:	Title	Comment
to be determined	20 000	<i>Mouillages de Mutsamudu</i>	New paper chart, high speed crafts
FR576810	12 000	<i>Madagascar – Port d'Antsiranana</i>	
FR277970	700 000	<i>Partie Nord du Canal du Mozambique</i>	

The status of ENC production in the area is:

Usage Band	Produced Cells	Planned Cells	%
1	0	0	/
2	3	5	60,0
3	3	3	100
4	8	9	88,9
5	9	18	61,1
6	2		
Total	25	35	71,4

3.2. ENC Distribution method

All French ENCs are distributed to End User Service Providers by PRIMAR RENC. France is providing its support to the IC-ENC-PRIMAR Cooperation Committee working groups to develop a RENC-to-RENC cooperation concept.

3.3. RNCs

NTR.

3.4. INT charts

See next section for details.

Here the overall planification of SHOM for INT chart production:

Scale	Produced INT charts	Planned INT charts	%
Small (<1/1 000 000)	2	4	50
Medium	4	7	57
Large (>1/100 000)	3	3	100
Total	9	14	64

3.5. National paper charts

Here are the charts produced since the last conference:

National	INT	New chart (NC) or new edition (NE)	Scale 1 :	Title
7488	7063	NC	1 000 000	De l'Île de la Réunion à L'Île de Rodrigues
7490	7710	NC	350 000	Des Comores au récif du Geyser - Replaces FR5983
7680	/	NC	40 000	Baie de Diego Suarez - Replaces FR 4696 (Madagascar)
7492	/	NE	35 000	Île de Mayotte – Partie Nord – De la Passe des Îles Choazil à Dzaoudzi
7493	/	NE	35 000	Île de Mayotte – Partie Est – De Dzaoudzi à la Pointe Saziley
7494	/	NE	35 000	Île de Mayotte – Partie Ouest – De Chissioua Mbouini à la Baie d'Acoua
7682	7722	NC	50 000	Abords nord de Tamatave - Replaces FR6318 (Madagascar)

The following charts are planned in 2014-2017:

National	INT	New chart (NC) or new edition (NE)	Scale 1:	Title
TBD	/	NC	TBD	Port de Mahajanga (Madagascar) – Replaces FR6078 (*)
TBD	/	NC	TBD	Approches de Mahajanga (Madagascar) – Replaces FR6077 (*)
TBD	7053	NC	1 000 000	Approches Sud du Canal du Mozambique – Coproduction PT/FR
TBD	7054	NC	1 000 000	Canal du Mozambique – Coproduction PT/FR
7487	7062	NC	1 000 000	Approches Nord-Est de Madagascar
7489	7064	NC	1 000 000	Approches Sud-Est de Madagascar
7495	/	NC	Div.	Ports et mouillages de l'Archipel des Comores – Replaces FR4806 and FR3698

(*) France works on a cartographic project for the area of Mahajanga (Madagascar). SHOM will send the proposal to the region H ICCWG coordinator.

4. New publications & updates

4.1. New Publications

Since the last conference, the following publications have been issued:

Type	Title
L	LC--FNA : Océan Atlantique (Est) – Océan Indien (Ouest) – Océan Pacifique

	– Edition 2014
RSX	922-RNA : Radiocommunications maritimes – Volume 2 : Afrique – Asie – Australasie – Edition 2014
RSX	961-RNA : Stations radiométéorologiques – Volume 1 : Europe, Afrique et Asie – Edition 2013

RSX: Radio stations; L: List of Lights; DIV: Miscellaneous

4.2. Means of delivery

SHOM continues to increase the production of its digital nautical publications:

- The launch of SHOM's official online store (diffusion.shom.fr) in March 2014 gives access to wide range of downloadable products dedicated to all mariners and users either by punctual purchase, by subscription (including flux),
- From now, notice to mariners (GAN) and some publications are only available in digital format (weekly updated pdf files) on that web platform (<http://diffusion.shom.fr>).

On the other hand, a MSI report online service (<http://infonaut.data.shom.fr/>), accessible to all mariners, allows to report directly any discrepancies between the field and SHOM's product.

4.3. Problems encountered

NTR.

5. MSI Existing infrastructure for transmission

5.1. New infrastructure in accordance with GMDSS Master Plan

NTR.

5.2. Problems encountered

NTR.

6. C-55 Latest update

The last C-55 update for the region is dated May 2010. A new Region H update has been sent to the IHB on June 24th 2014. The C-55 charting and surveying status values regarding Region H areas under SHOM responsibility are summed up in the following tables:

Survey Status	Depth < 200m			Depth > 200m		
	A	B	C	A	B	C
Iles Éparses - France (Bassas de India, Europa et Juan de Nova)	100	0	0	15	16	69
Mayotte et Glorieuses – France	70	20	10	51	0	49
La Réunion et Tromelin – France	40	30	30	19	1	80
Terres Australes françaises (Crozet, Kerguelen, Amsterdam, Saint-Paul)	6	0	94	20	15	66
Comores (Union des)	36	0	64	28	0	72
Madagascar (République de)	1	0	99	12	0	88

Charting Status	Small (<1 M)			Medium (1M < / < 100 000)			Large (> 100 000)			Metric	WGS84
	A	B	C	A	B	C	A	B	C		
Iles éparses - France (Bassas de India, Europa et Juan de Nova)	100	0	NA	0	0	0	0	0	0	100	100
Mayotte et Glorieuses - France	100	0	100	100	0	100	75	0	50	100	100
La Réunion et Tromelin - France	100	0	NA	100	0	100	100	0	75	100	100
Terres Australes françaises (Crozet, Kerguelen, Amsterdam, Saint-Paul)	100	0	NA	100	0	33,33	56	0	0	100	100
Comores (Union des)	100	0	100	100	0	100	20	0	0	100	100
Madagascar (République de)	100	0	33,33	10	0	7,69	40	0	33,3	100	100

Fig. 6: C-55 update values for survey status (top table) and charting status (down table). Changes from 2013 are highlighted.

7. Capacity Building Offer of and/or demand for Capacity Building

7.1. Training received, needed, offered

The current deployment of the French Navy Survey Vessel *Beautemps-Beaupré* (BBP) in the region has been the occasion to offer some “Sea ridings” opportunities to Madagascar and Comoros, sorts of practical training to foster a transfer of some on-the-filed “savoir-faire” from SHOM survey team. Two trainees from each states are registered on each of the two “sea ridings” 10 days sessions scheduled in July in August 2014.

7.2. Status of national, bilateral, multilateral or regional development projects with hydrographic component

NTR.

7.3. Definition of bids to IHOCBC

NTR.

8. Oceanographic activities

8.1. GEBCO/IBC’s activities

NTR.

8.2. Tide gauge network

Data from the main tide gauge networks in the Indian Ocean (RONIM from SHOM, ROSAME from LEGOS) are available on the REFMAR web portal, operated by SHOM (<http://refmar.shom.fr>), together with the necessary metadata. When possible, raw data are available in near real time. Most of those data are also available on the IOC sea level facility website.

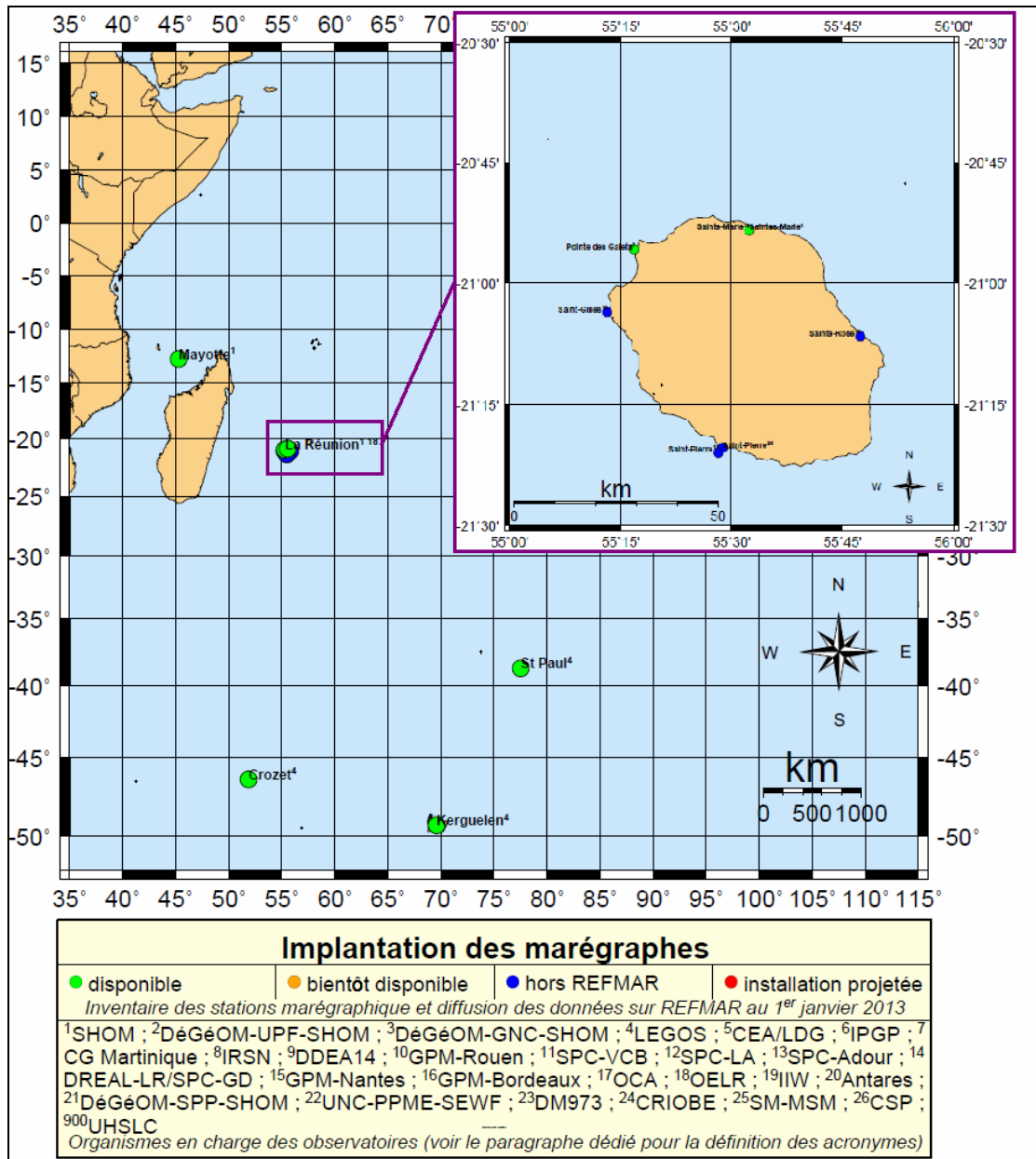


Fig. 4: French tide gauges in the Indian Ocean :
Green dots are already available on REFMAR website and blue dots are still under progress.

8.3. New equipment

Under SONEL and REGINA programs, in cooperation with the local authorities (the DREAL and the General Council of Mayotte), a GNSS permanent station has been installed in November 2013 and has been tied with precise leveling to all the local markers and leveling network benchmarks.

8.4. Problems encountered

NTR.

9. Other activities

9.1. Meteorological data collection

NTR.

9.2. Geospatial studies

NTR.

9.3. Disaster prevention

- Tsunami & Coastal flooding :

Five tide gauge (Mayotte, La Réunion (2 TG), Kerguelen, Toamasina (Madagascar) are transmitting their measurements in real time through GTS to support Tsunami and storm surge warning programs.

- **Oil spills:**

NTR.

9.4. Environmental protection

NTR.

9.5. Astronomical observations

NTR.

9.6. Magnetic/Gravity surveys

NTR.

9.7. MSDI Progress

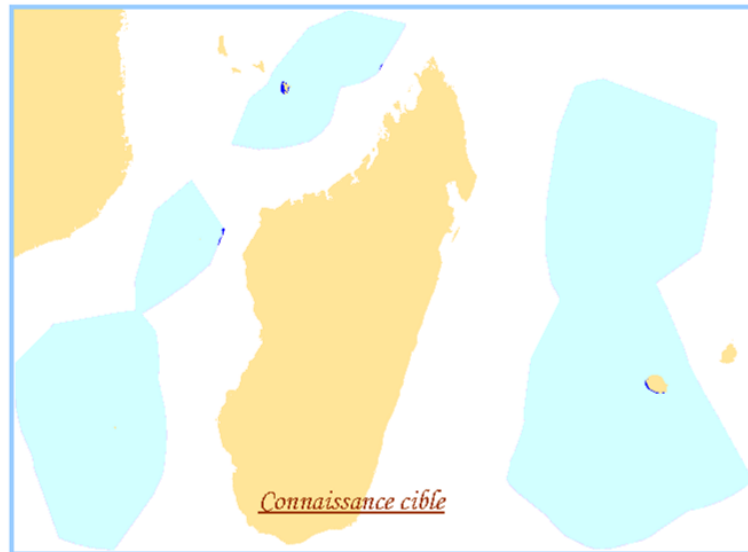
NTR.

9.8. International

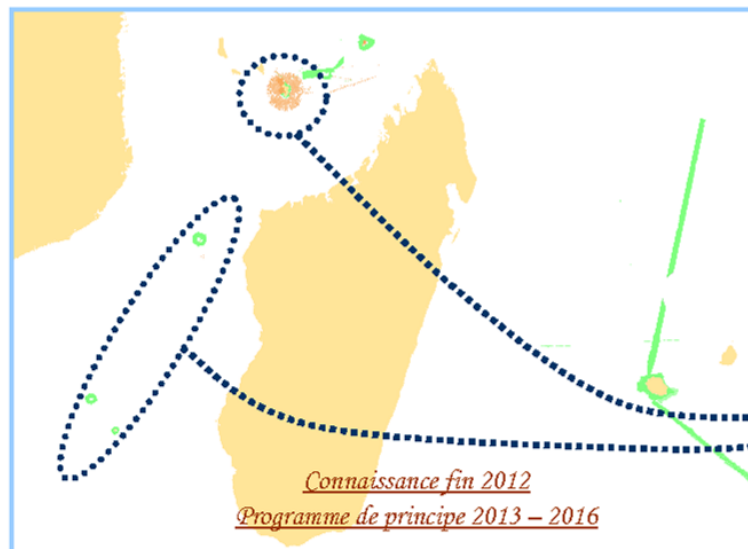
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10. Conclusions

SHOM will continue to support actively capacity building initiatives within the SAIHC area, under the framework of the newly approved IHO Capacity building strategy. Besides, SHOM encourages any initiative that could lead to the definition of a specific, sustainable capacity building project for the SAIHC region.

ANNEX I**2013-2016 French survey program for the SAIHC region***La Réunion, Mayotte, îles Éparses*

Répartition de la connaissance cible par ordre S-44 de l'OHI	Surface (km ²)	Ordre spécial	Ordre 1a	Ordre 1b	Ordre 2
ZEE et extension juridique du plateau continental	1 090 370	/	/	0.1%	99.9%



Répartition de la superficie par niveau de qualité (%)	Levés réalisés après 1980. Qualité généralement conforme aux normes en vigueur	Levés réalisés entre 1950 et 1980. Qualité pouvant nécessiter des reprises partielles (ordre 2 S-44)	Levés réalisés avant 1950. Qualité insuffisante non conforme aux normes en vigueur	Zone non connue
État connaissance fin 2012	2.5%	0.3%	0%	97.2%
État connaissance cible	50.1%	0.2%	0%	49.7%
État connaissance fin 2016	2.6%	0.3%	0%	97.1%

Programme de principe 2013 – 2016 :

- poursuite des levés à Mayotte (100 j) ;
- levés d'opportunité dans les îles du canal de Mozambique (20 j).