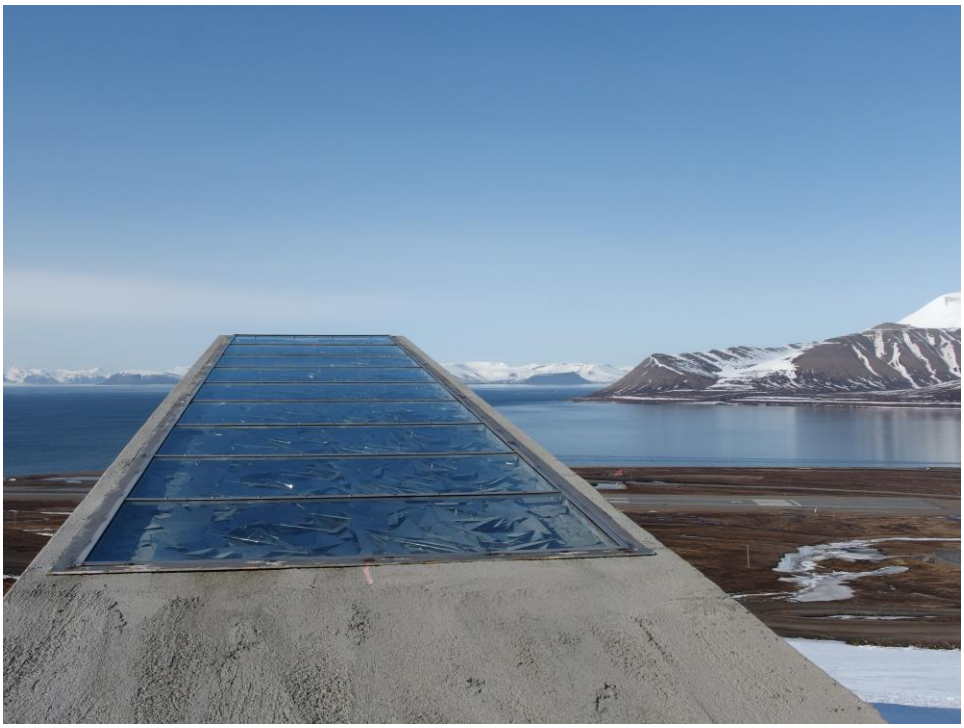
Svalbard
Global Seed Vault

Annual Progress Report 2016



Contents

Front page photo: Svalbard Global Seed Vault, May 2016

2016 at a glance

- Altogether 42,979 new safety duplicates from 17 depositors were stored in the SGSV 2016. At the end of the year total holding of seed accessions in the Seed Vault was 880,837 samples.
- By the end of the year chamber two is filled to 84% of its current capacity.
- Eight new institutions signed the Deposit Agreement, - five of them made their first seed deposits in 2016. New countries to deposit seeds in 2016 were New Zealand, France, Singapore and Bosnia & Herzegovina.
- Wheat accessions from Singapore were handed over and deposited as part of a State visit for the President couple in Singapore to the Royal couple in Norway.
- Heavy rainfall in October, very unusual for Svalbard, caused water intrusion in the entrance tunnel and damage to electricity supplies in the Vault. The seed storage was not affected, but the incident has speeded up the process for construction improvements to address expected climate change.
- NordGen conducted 26 visits for media and 14 visits for politicians/policy makers, artists and scientists. Four depositor institutes visited the Seed Vault in 2016.

Foreword

NordGen is responsible for the operation and management of the Svalbard Global Seed Vault (SGSV) according to the Three Party Agreement with the Norwegian Ministry of Agriculture and Food (MAF) and the Global Cop Diversity Trust (Crop Trust).

The first three-party agreement was signed for ten years in March 2007, and 2016 was then the last full year of Seed Vault management under this agreement. Due to the finalisation of this agreement, a comprehensive 10 year report is being made.

The objective of the Seed Vault is to provide a safety net for the international conservation system of plant genetic resources, and to contribute to securing of the maximum amount of plant genetic diversity of importance to humanity for the long term. The success of the SGSV has continued this year both measured in terms of participation from the global gene bank community and in terms of public interest and awareness about the purpose of SGSV. By the end of 2016, the SGSV holds more than 880 thousand safety duplicates representing wide inter- and intra-specific crop diversity deposited by 71 genebanks from around the world.

The SGSV is a flagship project for NordGen and 2016 was the ninth year of operation. We take great pride in the role we play in this project and I take this opportunity to thank our partners MAF and the Crop Trust for the good collaboration. I would also like to thank Statsbygg for the excellent working relationship we have at Svalbard.

Lise Lykke Steffensen
Director NordGen

Introduction

This annual progress report for the Svalbard Global Seed Vault is prepared by NordGen to give an overview of the operation of the Vault in 2016. The report is presented in the same format as previous annual reports.

The SGSV was established with the ''*objective to provide a safety net for the international conservation system of plant genetic resources, and to contribute to the securing of the maximum amount of plant genetic diversity of importance to humanity for the long term in accordance with the latest scientific knowledge and most appropriate techniques*''[1]. After nine years of operation the SGSV has become the major safety back-up site for PGRFA worldwide, and by the end of 2016 the collection at Svalbard stood at 880,837 safety duplicates from 71 institutes.

The operation of the SGSV is a collaborative endeavour at several levels. At the management level NordGen collaborates closely with MAF and the Crop Trust. At the facility operation level NordGen cooperates with Statsbygg in Longyearbyen who is responsible for the maintenance and the daily surveillance and monitoring of the facility at Svalbard. At the seed logistics level we cooperate with the institutions sending safety duplicates as well as with a chain of logistics and security partners during shipment and transport to the SGSV. The partnerships at all levels have worked very well also in 2016.

In 2016, 42,979 new safety duplicates were deposited from 17 depositors. Five gene banks/institutes deposited for the first time in 2016, while the twelve others are existing depositors sending additional material.

The international publicity about the SGSV project continued at a high level in 2016. The ICARDA seed withdrawal in the autumn 2015 had significant impact on media attention also in 2016.

Operation of the Seed Vault consists of two parts: (1) Physical maintenance of the facility, overseen by Statsbygg and (2) Seed management and operation, overseen by NordGen. NordGens' responsibilities for the management of seed deposits are stated in the Three Party Agreement providing for the long term funding, management and operation of the Svalbard Global Seed Vault.

[1] The agreement of 2007 between the Royal Norwegian Ministry of Agriculture and Food, The Global Crop Diversity Trust and the NordGen providing for the funding, management and operation of the Svalbard Global Seed Vault.

Facility management

The Norwegian Ministry for Food and Agriculture (MAF) is the national responsible authority for the Svalbard Global Seed Vault. The property management and daily monitoring of the SGSV is the responsibility of Statsbygg (the Norwegian directorate for public constructions). The property management duties of Statsbygg are stated in the lease-agreement between MAF and Statsbygg.

Statsbygg reports on the daily operation and the outcomes of work on the physical facility to MAF in user-meetings. All electro-technical installations are managed through a central operation system (SD-system) accessible inside the Seed Vault as well as from the Statsbygg office in Longyearbyen.

Over the last years there are increasing concerns about climate change in Svalbard and the impact this might have for the management of the Seed Vault. The average temperature in Longyearbyen have increased recent years, causing longer melting season and reduced frozen soils around the outer parts of the vault construction.

During recent years, more or less continuous low level water intrusion in the entrance tunnel has been controlled and taken care of by Statsbygg through the established drainage system, water pumps, etc. In October 2016, a heavy rainfall incident caused larger water volumes in the tunnel than previously recorded. This caused damage to the electricity supplies, and it was necessary to install additional equipment and to get assistance from the local government staff to pump out water and to re-establish normal management routines.

Due to repairs to electricity systems, clean-ups etc. the Seed Vault was closed for visitors for some weeks after. The seed storage, including the planned seed deposits in October, was not affected by this incident, and the storing temperature has been stable within the set limits through the year.

Monitoring of water intrusion and discussions about possible solutions have been on the agenda during the last years. The October incident and the increased water intrusion problems during 2016 have reinforced the need for technical improvements, and processes towards a water proof construction have been speeded up.

NordGen and Statsbygg have carried out a security inspection together with the police department at the Governor of Svalbard, and precautionary measures have been suggested and partly carried out. Further measures for improving the security will be implemented.

Seed management and operation

NordGen is responsible for managing and operating all aspects of the safety deposit process, including information tasks. This responsibility spans from liaising with collection holders interested in depositing seed samples to operation of the databases and organization of the storage process at Svalbard.

The overall framework for the tasks carried out by NordGen is organized into four platforms: 1) Overall administration; 2) Information management; 3) Practical Seed administration and 4) Public relations. A senior advisor provides overall leadership and internal coordination of entering into deposit agreements, planning and preparing for seed shipments, and handling of the deposit openings on the site. The senior advisor also works with public information and requests for visits to the site. All NordGen activities in the Seed Vault are conducted in cooperation with the partners MAF and the Crop Trust.

Platform 1: Overall Administration & IAC Secretary Administration

The overall administration includes coordination and liaising with all relevant stakeholders to the Seed Vault including, but not restricted to, MAF, the Crop Trust, Statsbygg, the governor of Svalbard, and depositors. This platform also includes the provision of secretariat services for the International Advisory Council (IAC) in accordance with the Three Party Agreement.

The financial administration covers annual budgets and financial statements to be presented to the Crop Trust and MAF, bookkeeping's of records and original vouchers in accordance with Nordic Council of Ministers practice. Open book inspection service is available for the Crop Trust and the MAF. NordGen reports on its work throughout the year in meetings between the partners and more formally in its annual progress report for SGSV.

The secretary administration tasks for IAC lies within (1) budgetary administration (2) planning arrangements and follow up of IAC meetings and (3) general secretary services for IAC members. There was no IAC-meeting in 2016. Next meeting will be held in February 2017.

Deposit Agreement signing and deposit coordination

By the end of 2016 NordGen has signed the Deposit Agreements (DA) with 77 institutions (Annex 1). Six of these have not yet made deposits. Five new depositors signed the DA and made deposits for the first time in 2016.

Twelve of the existing 71 depositors are International Agricultural Research Institutes (IARCs), 47 are national gene banks, 2 are regional genebanks, 6 are university gene banks and 3 are NGO gene bank

collections. One of the new depositors in 2016, Temasec Life Sciences Laboratories Ltd in Singapore, is a private company. This was the first time that a private commercial company deposited seed samples in the Seed Vault. Their deposit was made in connection with a state visit to Norway from the President in Singapore.

Figure 2 shows the proportion and numbers of safety duplicates deposited by different types of genebanks by the end of 2016.

Figure 3 shows the relative size of deposits from the different depositor groups. The largest share of the current holdings in the SGSV is deposited by IARCs represented by several institutes belonging to the Consultative Group of International Agricultural Research Centres (CGIAR), the Asian Vegetable Research Centre (AVRDC) and the Tropical Agricultural Research and Higher Education Centre (CATIE), all holding collections of PGRFA in trust for the UN Food and Agriculture Organisation (FAO).

Considering the national and subnational collections, the majority of the depositors are located in developing regions; however the numbers of safety duplicates sent from institutes in developing regions are smaller than the numbers sent from institutes in developed regions.

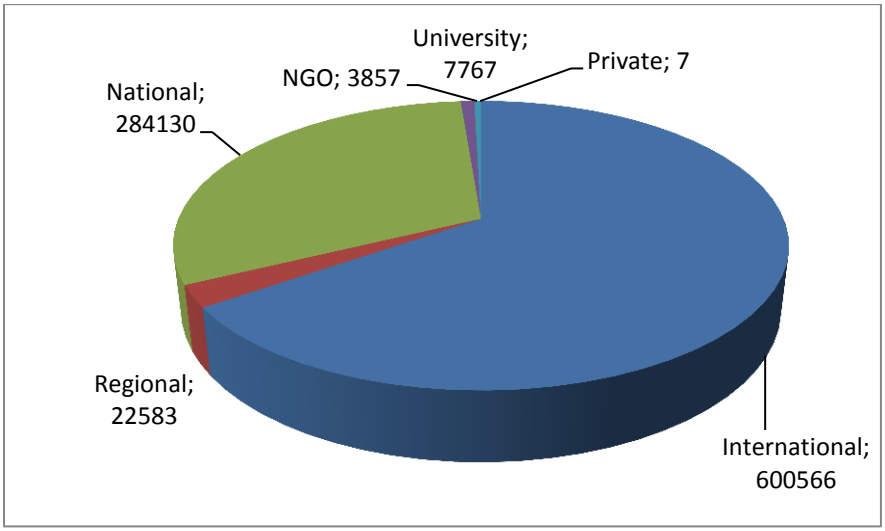


Figure 2. The proportion and numbers of safety duplicates currently deposited in The Vault at the end of 2016 by different types of genebanks.

Figure 3. Genebanks with safety deposits in the Svalbard Global Seed Vault. The radius of the circles is relative to the number of samples deposited, and the circle size reflects the size of the deposits according to 25 size classes. Yellow circles are International Agricultural Research Centres and green circles are regional, national or subnational genebanks. (The radius of the red Svalbard circle is not relative to the holdings.)

Platform 2: Information management

This platform serves the development, technical service to depositors, and maintenance of the databases. NordGen maintains two databases for the Seed Vault; one box level storage system database and one safety duplicate level database with descriptors of all the material stored.

Depositors are required to provide electronic inventories of the material they wish to deposit prior to shipment to Svalbard. The purpose of receiving the data prior to shipment is to allow NordGen to check if the data is of satisfactory quality, as well as to check for obvious duplications of material already stored in the vault. Depositors report a minimum set of descriptors necessary for unique identification of the samples. Information for depositors is provided on the "guidelines for depositors'" page of www.nordgen.org/sgsv. The database is updated directly following every seed deposit event. The data is publicly available and searchable from the Information Sharing page of the Seed Portal webpage.

The data portal is an important tool in NordGens' interaction with partners, especially the Crop Trust and the depositors. The data portal is also a standard reference for journalists searching for the latest statistics and biological and geographic information of the material stored in SGSV. There are links to this

portal both from NordGens' homepage and the official webpage of the Seed Vault maintained by MAF (www.seedvault.no) as well as the website of the Crop Trust (www.croptrust.org).

The Svalbard Global Seed Vault is part of the global system for *ex-situ* conservation of PGRFA. An important element in that system is the global accession level database Genesys – Gateway to genetic resources database (http://www.genesys-pgr.org/). The provider institute code, accession number and genus in the SGSV data base is matched with data in Genesys and the database reports whether the accession is backed-up at Svalbard or not.

The databases of SGSV are maintained on separate servers at NordGen headquarters in Sweden. All data are backed-up daily to two different locations; a dedicated backup server and a remote server located in another town.

Platform 3: Practical Seed Administration

Overall management of transport logistics for seeds deposited is managed by NordGen. The practical seed administration covers assistance regarding security, customs, phytosanitary certificates and other relevant clearances. NordGen communicates closely with depositors on all practical aspects of making shipments.

The depositors are instructed to make the shipment with a regular courier such as DHL, TNT etc. from their genebank to Oslo. In the cases where the shipment cost is covered by the Crop Trust, NordGen and Trust staff works in close collaboration to ensure proper packaging, etc.

To avoid bottleneck problems between the mainland and Svalbard, NordGen organizes transport from Oslo to Longyearbyen together with a private logistics company. NordGen negotiates regularly contracts for the Oslo-Longyearbyen logistics, and for 2016 shipments have been carried out under contract with the company Jetpak.

Logistics at Svalbard is coordinated by NordGen and handled in close collaboration with the local logistics company, Pole Position. Screening and security at arrival in Svalbard is handled in collaboration with the airport authorities at Longyearbyen airport and the security company, Securitas. Statsbygg provides support with logistics and technical backstopping during deposit openings at Svalbard.

Security during transport between the airport and the Seed Vault is considered together with the police department at the Governor's office. NordGen receives, registers and stores seed boxes inside the Seed Vault. The routines for the management of Depositor Agreements, organization of deposit logistics, data handling and practical on site logistics and security are described in Working Instructions under NordGens' Quality Management System.

NordGen has organized between three and six openings of the SGSV for storage of new safety duplicates per year since the opening in 2008. Depositors are asked to organize shipments for arrival in Oslo during seven days windows.

NordGen organized six deposit occasions during 2015, comprising 42,979 seed samples from 17 different depositors. (Table 1).

Table 1. Deposits and dates in 2016

Depositor/Date of seed deposit	Code	Acronym	Acc.
8th of February			
Nordic Genetic Resource Center	SWE054	NORDGEN	2013
1st of March			
Barley and Wild Plant Resources Center, Okayama University	JPN009	BWPRC	3094
Seed Savers Exchange	USA974	SSE	435
20th of May			
Leibniz Institute of Plant Genetics and Crop Plant Research	DEU146	IPK	6241
Margot Forde Forage Germplasm Centre, AgResearch Ltd	NZL001	AGRESEARCH	726
The Chaipattana Foundation	THA513	CHAIPAT	20
The World Vegetable Center	TWN001	AVRDC	1207
23rd of June			
National Institute for Agricultural Research	FRA040	INRA	2
22nd of September			
National Plant Germplasm System	USA996	NPGS	19375
18th of October			
Agricultural Research Institute of Burundi	BDI003	ISABU	74
Genetic Resources Institute, University of Banjaluka	BIH039	GRIBL	326
Centro Internacional de Agricultura Tropical	COL003	CIAT	4392
International Crop Research Inst. for the Semi-Arid Tropics	IND002	ICRISAT	804
Barley and Wild Plant Resources Center, Okayama University	JPN009	BWPRC	1599
International Institute of Tropical Agriculture	NGA057	IITA	549
Centro Internacional de la Papa	PER001	CIP	579
Temasek Life Sciences Laboratory Limited	SGP008	TLL	7
Nordic Genetic Resource Center	SWE054	NORDGEN	1536

Platform 4: Public Relations

In accordance with article 4 in the Three Party Agreement NordGen works considerably with public outreach activities. In addition, MAF and the Trust both do active PR-work in connection with the Seed Vault. Information about the Svalbard Global Seed Vault is passed on through several arenas: responding to questions about the operation from the public and from media; presenting the SGSV to different scientific and general audiences through public presentations; interviews to the press and articles in various publications and conducting visits to the SGSV for prioritized groups and media.

NordGen receives a large number of requests for visits, information, interviews and lectures about the Seed Vault. All serious requests are responded to, and in 2016 NordGen responded to 137 independent requests for vault visits and/or for information.

A quite strict visitor policy is pursued. The general guiding principle is that we «bring the seed vault to the people rather than people to the vault». However, in connection with deposit openings and in special cases NordGen hosts selected media and VIP for information and a tour in the vault. This is done in close collaboration and coordination with the other partners.

The majority of requests are coming from different kinds of media. In total 80 requests for information and/or visiting the vault came from TV or radio stations, web based media/video documentaries, newspapers or magazines. Out of these NordGen conducted 26 visits for media, teams or solitary journalists in 2016.

Fourteen visits were conducted for politicians/policy makers, artists and scientists, mainly social scientists with projects involving the SGSV. Three seed depositing institutes visited the Seed Vault in connection with their actual seed deposit in 2016. In addition, Statsbygg assisted at five occasions and facilitated access to the Seed Vault for four VIP delegations and at one occasion for representatives for a depositing gene bank.

Two Norwegian Parliament committees visited the vault in 2016, the Standing Committee on Foreign Affairs and Defence and The Standing Committee on Family and Cultural Affairs. On the 18th of September a lecture and a Seed Vault tour was given to participants to the International Ny-Ålesund Symposium 2016, hosted by the Norwegian Minister of Fisheries Per Sandberg.

During 2016, NordGen strengthened information and cooperation with actors in the Longyearbyen community. In May, lectures about plant genetic resources and Seed Vault operations, including a tour in the vault, were given to a group of 30 tourist guides at travel agencies in Svalbard. In September, lectures and a Seed Vault tour were presented to the staff at the Governor of Svalbard.

Financial result and other activities

Financial result

Financial result for 2016 amounts to SEK 303,563 as stated in the Budget and spending report in annex 2. Lower costs are mainly due to postponed accounting of the IAC meeting that was included in the budget for 2016. Increased workload for administrative staff related to the termination of the Three Party Agreement and negotiations for a new agreement has caused increased spending on Platform 1. Budget savings in Platform 2 for Practical Seed Administration and in Platform 4 for Public Relations is compensated by increased activities entered on the Seed Vault Coordinator in the accountants.

The positive result has been transferred to working capital fund, which amount as per 31 December 2016 to SEK 2.163.868.

Storage Capacity Assessment

After nine years of operation, only one of the three Seed Vault chambers is being used. The two other halls will be prepared for receiving seeds when more storage space is needed. Preparations for making the next chamber ready for use, cooled down to correct temperature at -18^{o}C, must start 1.5-2 years before the first seed boxes arrive.

The current holding by the end of 2016 is 2 424 boxes, including test boxes (21) and two boxes with seeds from the local Svalbard flora. Due to the retrieval of seed boxes to ICARDA there was a decrease in the total number of boxes in the Vault during 2015. ICARDA has indicated that about half of their remaining 197 deposited seed boxes will be requested back in 2017 and the last part some time after that. ICARDA will return new seed samples of these accessions from 2017 and onwards.

The total storage capacity of chamber 2 with the current shelving is 2 880 boxes. The storage capacity with current shelving is then filled up to 84 %. Re-installing the shelf sections that were temporarily removed in 2009 will increase the capacity of seed hall 2 up to 3 168 boxes. See figures 4 and 5 for an illustration of the increase/decrease in number of boxes over the years. By the end of 2016 there is space for receiving 744 more boxes in hall 2 (after re-installation of shelves).

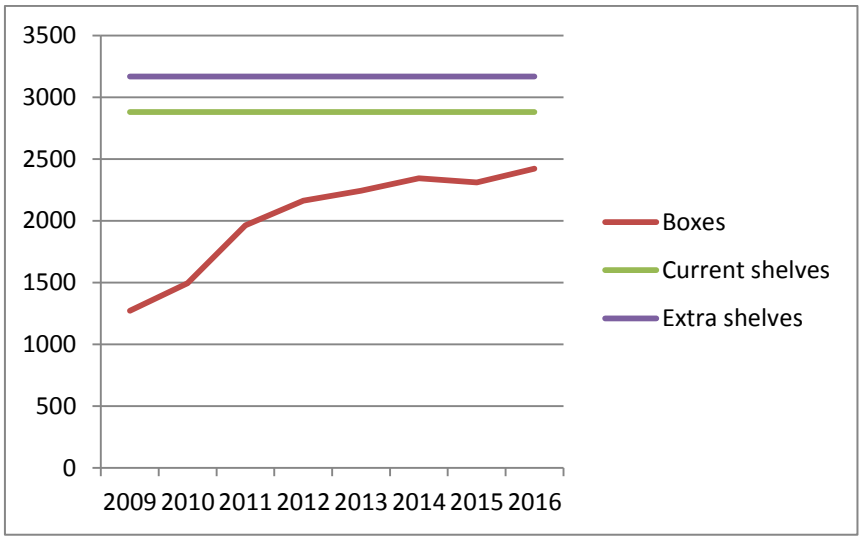


Figure 4. Total number of boxes vs. storage capacity in Vault chamber 2

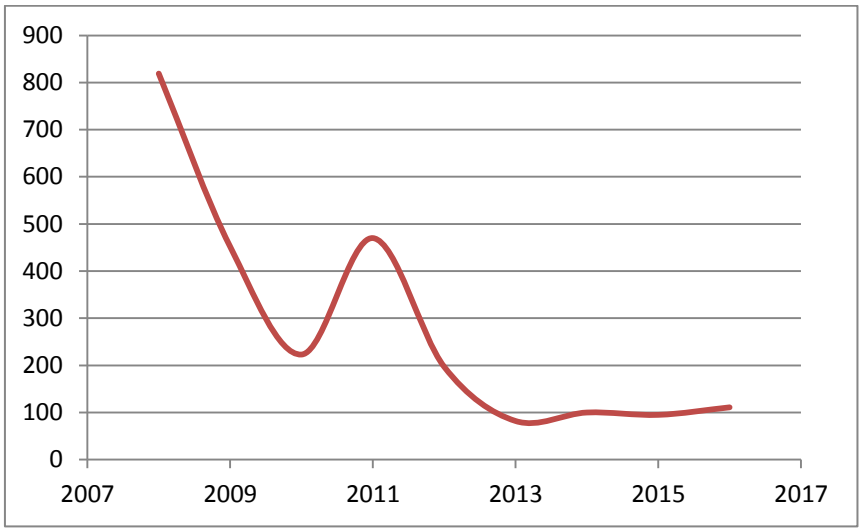


Figure 5. Numbers of boxes arriving per year 2008-2016. (Withdrawals not shown).

Current and potential depositing gene banks are regularly asked about plans for future SGSV seed deposits. Unfortunately, few gene banks and depositing institutes are able to give indications that can be used for future planning of Seed Vault activities. A realistic estimate of receiving net 100 additional boxes each year means that preparing a second hall will be needed in about 6 years. Even if 150 new boxes should be deposited each year a new hall will not be needed before 2021-2022.

Uncertainties with these estimates are how much current and possible new depositors will deposit in the coming few years, how compact they will be able to pack the boxes and if new withdrawals of seeds will take place. Use of a smaller standard size box for small accession numbers could postpone the need for preparing a second hall for seed storing.

Annex 1. List of depositors to the Svalbard Global Seed Vault listed in order of Deposit Agreement signature.

Acronym	Country	Institute name	SDA	Accessions_End2016
WARDA	International, Benin	Africa Rice Center	2007/2008	14839
CIAT	International, Columbia	Centro Internacional de Agricultura Tropical	2007/2008	50272
CATIE	International, Costa Rica	CATIE	2007/2008	723
ILRI	International, Ethiopia	International Livestock Research Institute	2007/2008	5335
ICRISAT	International, India	International Crop Research Institute for the Semi-Arid Tropics	2007/2008	110014
ICRAF	International, Kenya	World Agroforestry Centre	2007/2008	777
CIMMYT	International, Mexico	Centro Internacional de Mejoramiento de Maiz y Trigo	2007/2008	130291
IITA	International, Nigeria	International Institute of Tropical Agriculture	2007/2008	20189
CIP	International, Peru	Centro Internacional de la Papa	2007/2008	7640
IRRI	International, Philippines	International Rice Research Institute	2007/2008	122060
ICARDA	International, Syria	International Centre for Agricultural Research in Dry Areas	2007/2008	78411
AVRDC	International, Taiwan	The World Vegetable Center	2007/2008	14411
NORDGEN	Regional, Sweden	Nordic Genetic Resource Center	30.01.2008	17574
IPK	Germany	Leibniz Institute of Plant Genetics and Crop Plant Research	30.01.2008	42412
CGN	Netherlands	Centre for Genetic Resources	30.01.2008	19713

PGRI-NARC	Pakistan	Plant Genetic Resources Institute, National Agricultural Research Centre	30.01.2008	2874
SSE	USA	Seed Savers Exchange	30.01.2008	2652
NGBK	Kenya	Kenya Agricultural & Livestock Research Organisation (KALRO): Genetic Resources Research Centre	26.02.2008	1314
NAC	South Korea	National Agrobiodiversity Center	06.05.2008	13185
IAS	Macedonia	Institute of Agriculture Skopje	11.06.2008	0
NCPGR	India	National Burea of Plant Genetic Resources	04.07.2008	25
VIR	Russia	N.I. Vavilov All-Russian Scientific Research Institute of Plant Industry	04.07.2008	5278
RAC	Switzerland	Station Federale de Recherches en Production Vegetale de Changins	27.10.2008	9665
EMBRAPA	Brazil	EMBRAPA	06.11.2008	1319
AFT	Ireland	Oak Park Research Centre	16.01.2009	577
DAFF	Ireland	Department of Agriculture, Food and Rural Development	22.01.2009	100
TARI	Taiwan	Taiwan Agricultural Research Institute	26.02.2009	10503
UAAS	Ukraine	Institute of Plant Production n.a. V.Y. Yurjev of UAAS	03.03.2009	2782
PGRC	Canada	Plant Gene Resources of Canada, Canadian Genetic Resources Program, Saskatoon Research Centre	05.11.2009	25868
ILRF	Georgia	I. Lomouri Research Institute of Farming.	23.02.2010	305

AAS	North Korea	Pyongyang AAS	18.03.2010	5700
La Molina	Peru	Programma de Mais	25.05.2010	1296
ICCI	Israel	Institute of Cereal Crop Improvement, Tel Aviv University	23.06.2010	900
DELEP	USA	Desert Legume Program. University of Arizona	24.08.2010	134
ARC	Sudan	Agricultural Research Corporation	18.10.2010	1195
SPGRC	Regional, Zambia	SADC Plant Genetic Resources Centre	09.11.2010	1463
NAGREF	Greece	National Agricultural Research Organization	02.02.2011	25
ICABIOGRAD	Indonesia	Indonesian Center for Agricultural Biotechnology and Genetic Resources	02.02.2011	1050
DAR (MOAI)	Myanmar	Department of Agricultural Research	23.02.2011	718
INIAP	Ecuador	Instituto Nacional Autónomo de Investigaciónes Agropecuarias	12.04.2011	168
NARO	Uganda	National Agricultural Research Organization	26.05.2011	777
BARI	Bangladesh	Plant Genetic Resource Centre, Bangladesh Agricultural Research Institute	10.06.2011	0
LS	Italy	University of Pavia, Department of Earth and Environmental Sciences, Lombardy seed bank	23.06.2011	2

NACGRAB	Nigeria	National Centre for Genetic Resources and Biotechnology (NACGRAB)	06.09.2011	800
IRAG	Guinea	Institut de Recherche Agronomique de Guinée	07.10.2011	0
RNGRC	Tajikistan	Republican National Genetic Resource Center	14.11.2011	1646
AGRI	Azerbaijan	Genetic Resources Institute (AGRI) of the Azerbaijan National Academy of Sciences	17.02.2012	1522
INRB	Portugal	Instituto Nacional de Recursos Biológicos	05.03.2012	12
ISABU	Burundi	Agricultural Research Institute of Burundi	19.06.2012	365
IER	Mali	Institute of rural economy	19.09.2012	158
PSARTI	Mongolia	Plant Science Agricultural Research Institute	02.10.2012	160
INIA La Platina	Chile	Unidad de Recursos Genéticos -INIA La Platina	03.10.2012	43
AUG	Georgia	Georgia State Agrarian University	15.10.2012	120
NPGRL	Philippines	National Plant Genetic Resources Laboratory	18.10.2012	2254
ASAU	Armenia	Armenian State Agrarian University, Laboratory of Plant Gene Pool and Breeding	16.12.2012	175
CN FCRC	Thailand	Chainat Field Crops Research Center	01.03.2013	150
UzRIPI	Uzbekistan	Uzbek Research Institute of Plant Industry	01.03.2013	2038

SARDI	Australia	South Australian Research and Development Institute	12.06.2013	2926
AGG	Australia	Australian Grains Genebank/Australian Tropical Crops Collection	26.11.2013	7486
BWPRC	Japan	National University Corporation Okayama University	26.11.2013	575
NRSSL	Thailand	National Rice Seed Storage Laboratory for Genetic Resources, NRSSL, Rice Department	14.08.2013	81
AGES	Austria	Austrian Agency for Health and Food Safety, Dept. for Plant Genetic Resources	17.03.2014	1457
BGRIPGR	Bulgaria	Institute for Plant Genetic Resources "K.Malkov"	17.03.2014	933
NCGRP	USA	National Center for Genetic Resources Preservation, USDA	SIGNED 18.01.2015	88647
NFSC	Norway	The Norwegian Forest Seed Centre	08.01.2015	208
Luke	Finland	Natural Resources Institute Finland	21.01.2015	7
CRI	Czech Republic	Crop Research Institute	28.08.2015	806
UCR-CIA	Costa Rica	Universidad de Costa Rica	08.09.2015	6
PdeP	Peru	Parque de la Papa	09.09.2015	750

AgResearch	New Zealand	Margot Forde Germplasm Centre	11.1.2016	726
CHAIPATT	Thailand	Chaipattana Foundation	11.2.2016	20
AMGRC	Australia	Australian Pastures Gene Bank	11.3.2016	0
GRIBL	Bosnia & Herzegovina	Genetic Resources Institute, University of Banja Luka	16.6.2016	326
INRA	France	National Institute for Agricultural Research	16.6.2016	2
TLL	Singapore	Temasec Life Sciences Laboratories Ltd.	19.8.2016	7
James Hutton	UK	James Hutton Institute	09.11.2016	0
MNREC	Myanmar	Myanmar Ministry of Natural Resources and Environmental Conservation	09.11.2016	0

Annex 2 - Budget and spending 2016

Activity	Cost Category	Items	Cost basis		Budget 2016	Actual spending
			SEK	Qty	SEK	SEK
709512: Coordinator	Personnel [a]	Coordinator	110 000	7	770 000	825 962
	Travel [b1]	To Svalbard and other destinations	10 000	6	60 000	57 704
	Communication / supplies	Phone, computer,printer, mailing, rent etc.	25 000	1	25 000	45 977
Sub-total					**855 000**	**929 643**
709513: Platform 1 - Overall Administration	Personnel	Director and Administration	170 000	1,1	187 000	274 605
	Travel [c]	To Svalbard and other destinations	10 000	3	30 000	52 976
	Communication / supplies	Phone, printer, mailing etc.	15 000	1	15 000	26 505
Sub-total					**232 000**	**354 086**
709514: Platform 2 - Information Management	Personnel [a]	IT-manager	95 000	1,5	142 500	145 002
	Travel [b2]	To Svalbard	10 000	1	10 000	0
	IT System	Computer			0	0
	IT System	Server, web	59 000	1	59 000	54 000
Sub-total					**211 500**	**199 002**
709515: Platform 3 - Practical Seed Administration	Personnel [a]	Seed Technician	85 000	2	170 000	101 733
	Travel [b2]	To Svalbard	10 000	3	30 000	11 898
		Vehicle hire, local supplies	40 000	1	40 000	0
Sub-total					**240 000**	**113 631**
709516: Platform 4 - PR	Personnel [a]	Scientific information expert	110 000	5	550 000	548 851
	Travel [b1]	To Svalbard and other destinations	15 000	6	90 000	20 830
	Materials for media	External filming, editing and multiplication	30 000	1	30 000	7 095
	Communication / supplies	Phone, printer, mailing etc.	10 000	1	10 000	0
Sub-total					**680 000**	**576 776**
709517: International Advisory Council	Personnel	Director	170 000	0,5	85 000	20 799
	Personnel [a]	Other staff	85 000	0	0	0
	Communication / supplies	Communication (phone, printer, mailing etc)	0	0	0	0
	Travel [b1]	Meeting at Svalbard	12 000	12	144 000	0
	Expenditure	Meeting costs	50 000	1	50 000	0
Sub-total					**279 000**	**20 799**
709519: Pilot Project - Longterm storage		Testing, Testing Materials, Procedures	100 000	0	0	0
Sub-total					**0**	**0**

Total costs 2016 SEK	**2 497 500**	**2 193 937**
Result 2016 SEK		**303 563**

TOTAL SEK	**2 497 500**	**2 193 937**
TOTAL US$ [d]	**$273 249**	**$240 037**

WORKINGCAPITAL FUND SEK per 2016-12-31	**2 163 868**
WORKINGCAPITAL FUND US$ per 2016-12-31	**$236 747**