MOSAIC CO Form SC 13D January 18, 2018 UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

The Mosaic Company

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Titles of Class of Securities)

61945C103

(CUSIP Number)

Luciano Siani Pires Chief Financial Officer Vale S.A. Praia de Botafogo, 186, 20th floor Botafogo, 22250-145 Rio de Janeiro, RJ, Brazil +55 21 3814 8888

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

January 8, 2018

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7(b) for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, *see* the *Notes*).

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^{*} Based on the total number of issued and outstanding shares of Common Stock (defined below) of the Issuer (defined below) as of January 8, 2018 as provided by the Issuer to the Reporting Persons (defined below) on January 8, 2018 (385,226,223 shares after giving effect to the issuance of Shares (defined below) to the Reporting Persons).

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14

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^{*} Based on the total number of issued and outstanding shares of Common Stock of the Issuer as of January 8, 2018 as provided by the Issuer to the Reporting Persons on January 8, 2018 (385,226,223 shares after giving effect to the issuance of Shares to the Reporting Persons).

Item 1. Security and Issuer.

This Schedule 13D (this "Schedule 13D") relates to the shares of common stock, par value \$0.01 per share (the "Common Stock"), of The Mosaic Company, a Delaware corporation (the "Issuer"). The principal executive offices of the Issuer are located at 3033 Campus Drive, Suite E490, Plymouth, Minnesota 55441.

Item 2. Identity and Background.

This Schedule 13D is being filed jointly pursuant to Rule 13d-1(a) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to report the beneficial ownership of Vale S.A, a stock corporation (*sociedade por ações*) organized under the laws of the Federative Republic of Brazil ("Vale"), and Vale Fertilizer Netherlands B.V., a private limited liability company (*besloten vennootschap met beperkte aansprakelijkheid*) organized under the laws of the Netherlands ("VFN", and together with Vale, the "Reporting Persons").

The agreement among the Reporting Persons relating to the joint filing of this Schedule 13D is attached as Exhibit 1 hereto.

Vale is one of the largest metals and mining companies in the world, based on market capitalization. Vale is the world's largest producer of iron ore and iron ore pellets and the world's largest producer of nickel. Vale also produces manganese ore, ferroalloys, metallurgical and thermal coal, copper, platinum group metals (PGMs), gold, silver and cobalt, and is engaged in greenfield mineral exploration in six countries around the globe. Vale operates large logistics systems in Brazil and other regions of the world, including railroads, maritime terminals and ports, which are integrated with its mining operations. In addition, Vale has a portfolio of maritime freight assets, floating transfer stations and distribution centers to support the delivery of iron ore worldwide. Directly and through affiliates and joint ventures, Vale also has investments in energy and steel businesses. Vale's principal executive office is located at Praia de Botafogo, 186, 20th floor, Botafogo, 22250-145 Rio de Janeiro, RJ, Brazil.

VFN is an indirect wholly owned subsidiary of Vale. The principal business activities of VFN relate to the holding of certain subsidiaries of Vale. VFN's principal office is located at Herikerbergweg 238, Luna ArenA, 1101CM Amsterdam, the Netherlands.

The name, residence or business address and present principal occupation or employment of each director (and each alternate director, as applicable) and executive officer of the Reporting Persons are listed on Schedule I hereto.

The name, the state or other place of organization, the principal business and the address of the principal office of each person controlling Vale (together, the <u>"Vale Shareholders"</u>) are set forth below:

- BNDES Participações S.A. BNDESPAR ("BNDESPAR"), a company duly organized and existing in the Federative
- (1) Republic of Brazil. The address of BNDESPAR's principal executive office is Av. República do Chile, 100 Centro, 20.031-917 Rio de Janeiro, RJ, Brazil.
 - Banco Nacional de Desenvolvimento Econômico e Social BNDES ("BNDES"), a Brazilian state-owned
- (2) development bank and the sole shareholder of BNDESPAR. The address of BNDES's principal executive office is Av. República do Chile, 100 Centro, 20.031-917 Rio de Janeiro, RJ, Brazil.
 - Bradespar S.A. ("Bradespar"), a company duly organized and existing in the Federative Republic of Brazil.
- (3) Bradespar is a holding company with investments in Brazil . The address of Bradespar's principal executive office is Avenida Paulista, 1450, 9° andar, 01310-917 São Paulo, SP Brazil.

Litel Participações S.A. (<u>"Lite</u>l"), a company duly organized and existing in the Federative Republic of Brazil. Litel is a holding company whose primary shareholders are certain Brazilian pension funds. Litel was organized to hold an equity participation in Vale. The address of Litel's principal

executive office is Rua da Assembleia, nº 10, 37º andar, 3701, parte, 20011-901 Rio de Janeiro, RJ, Brazil.

Mitsui & Co., Ltd. ("Mitsui"), a company duly organized and existing in Japan. Mitsui is primarily engaged in the business of worldwide trading of various commodities. The address of Mitsui's principal executive office is Nippon Life Marunouchi Garden Tower, 1-3, Marunouchi 1-chome, Chiyoda-ku, Tokyo, 100-8631, Japan.

The name, residence or business address and present principal occupation or employment of each director and executive officer of the Vale Shareholders are listed on Schedule II hereto.

During the last five years, none of the Reporting Persons nor, to the knowledge of the Reporting Persons, without independent verification, any of the Vale Shareholders or persons listed on Schedule I or Schedule II hereto (i) has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

On December 19, 2016, the Reporting Persons entered into a Stock Purchase Agreement (as amended by that certain letter agreement, dated as of December 28, 2017, the "Purchase Agreement") with the Issuer, pursuant to which the Issuer acquired, upon the terms and subject to the conditions set forth in the Purchase Agreement, from the Reporting Persons (the "Purchase") Vale's global phosphate and potash operations conducted through Vale Fertilizantes S.A. ("VF") through the acquisition by the Issuer of all of the issued and outstanding capital stock of VF. Pursuant to the Purchase Agreement, on January 8, 2018, the Issuer paid aggregate consideration to the Reporting Persons comprised of (i) approximately \$1.10 billion in cash (after giving effect to certain adjustments based on matters such as the estimated working capital and indebtedness balances of VF at the time of closing), which amount may be adjusted following the closing of the Purchase in accordance with the Purchase Agreement to reflect actual balances at the time of closing, and (ii) 34,176,574 shares of Common Stock (the "Shares") issued and delivered to the Reporting Persons. Vale is the holder of record of an aggregate of 29,854,571 Shares and Vale Fertilizer Netherlands B.V. is the holder of record of an aggregate of 4,322,003 Shares.

The Purchase Agreement is filed as Exhibit 2 to this Schedule 13D and is incorporated herein by reference. The following description of various terms of the Purchase Agreement is qualified in its entirety by reference to the Purchase Agreement.

Item 4. Purpose of Transaction.

The Reporting Persons acquired the Shares for investment purposes only. The Reporting Persons expect to evaluate on an ongoing basis the Issuer's financial condition, business, operations and prospects, the market price of the Common Stock, conditions in the securities markets generally, general economic and industry conditions and other factors. In particular, the Reporting Persons (and their respective affiliates) may purchase up to 1% of the Common Stock or sell or transfer the shares of Common Stock owned by them from time to time in public or private transactions and/or may enter into privately negotiated derivative transactions with institutional counterparties to hedge the market risk of some or all of their positions in the Common Stock. Any such transactions may be effected at any time or from time to time subject to any applicable limitations imposed on the purchase or sale of the Common Stock owned by the Reporting Persons by the Investor Agreement (defined below), the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations promulgated thereunder or other applicable law.

Except as set forth in this Item 4 of this Schedule 13D, none of the Reporting Persons currently has any plans or proposals that relate to, or would result in, any transaction, event or action enumerated in paragraphs (a) through (j) of

Item 4 of Schedule 13D promulgated under the Exchange Act, although the Reporting Persons

may, at any time and from time to time, review or reconsider their position and/or change their purpose and/or formulate plans or proposals with respect thereto.

The Reporting Persons' investment in the Issuer is subject to the provisions of the Investor Agreement, dated as of January 8, 2018 (the "Investor Agreement"), entered into by and among the Issuer and the Reporting Persons, which is filed as Exhibit 3 to this Schedule 13D and is incorporated herein by reference and the Purchase Agreement. Certain provisions of the Investor Agreement and the Purchase Agreement are summarized below.

Director Designation Rights. The Investor Agreement provides that (i) so long the Reporting Persons and their respective affiliates (the "Vale Affiliates") beneficially own a number of shares of the Common Stock representing at least 90% of the shares issued to them at the closing of the Purchase (together with any shares of Common Stock received by the Vale Affiliates in connection with any stock split, stock dividend or similar transaction, the "Subject Shares"), the Vale Affiliates will be entitled to designate two individuals for nomination to the Issuer's Board of Directors (the "Board") and (ii) so long as the Vale Affiliates beneficially own a number of shares of Common Stock representing at least 50% of the Subject Shares (but less than 90% of the Subject Shares), the Vale Affiliates will be entitled to designate one individual for nomination to the Board, in each case, at each stockholders meeting at which directors of the Issuer are elected. Each individual nominated by the Vale Affiliates must meet the standards and qualifications set forth in the Investor Agreement upon the reasonable determination of the Board or its Corporate Governance and Nominating Committee. So long as the Vale Affiliates have the right to designate two nominees, the Vale Affiliates may only designate one nominee who is then serving as a director, officer or employee of Vale or any of its subsidiaries and, if the Vale Affiliates designate two nominees, one of the two designees must be "independent" with respect to the Issuer under the rules governing companies listed on the New York Stock Exchange and under the Issuer's Director Independence Standards.

The Purchase Agreement provides that the Issuer shall increase the size of the Board by one director and cause the resulting vacancy to be filled by one individual designated by Vale.

Pursuant to the Investor Agreement and the Purchase Agreement, Vale designated Luciano Siani Pires to be appointed director of the Issuer, and effective as of January 8, 2018, the Board elected Mr. Siani Pires to serve as a director of the Issuer for a term expiring at the annual meeting of shareholders in 2018 or until his successor is elected and qualified. Vale will be entitled to designate a second designee, as described above, at the next stockholders meeting at which directors of the Issuer are elected.

Transfer and Standstill Restrictions. The Investor Agreement also provides that, until January 8, 2020, the Vale Affiliates may not transfer any of the Subject Shares that they beneficially own, except that the Vale Affiliates may transfer Subject Shares to one or more of their respective affiliates, in connection with other limited exceptions or with the written consent of the Issuer. So long as the Vale Affiliates beneficially own 5% or more of the outstanding voting securities of the Issuer, however, the Vale Affiliates may not, subject to certain specified exceptions, transfer any Subject Shares to (i) any person if, after giving effect to such transfer, such person would beneficially own voting securities that represent 5% or more of the total voting power of the Issuer or (ii) certain specified competitors of the Issuer and other persons identified in the Investor Agreement.

In addition, during the period (the "Standstill Period") from the closing of the Purchase until the later of January 8, 2021 and the date on which the Board no longer includes any designees of the Vale Affiliates, the Vale Affiliates are subject to certain standstill restrictions. Under such standstill restrictions, the Vale Affiliates may not, among other things, acquire any shares of Common Stock, subject to specified exceptions, including that the Vale Affiliates may, until January 8, 2020, acquire additional shares of the Common Stock so long as the shares of Common Stock beneficially held by the Vale Affiliates (including such additional shares of Common Stock) do not represent more than 15% of the total voting power of the Issuer.

Voting Agreement. During the Standstill Period, the Vale Affiliates will vote all voting securities of the Issuer that they beneficially own (i) with respect to any proposal or resolution relating to the election of directors, in accordance with the recommendation of the Board and (ii) with respect to any other proposal or resolution, at their election, either in the same manner as, and in the same proportion to, all voting securities that are not beneficially held by the Vale Affiliates are voted or in accordance with the recommendation of the

Board. After the date on which the Board no longer includes a nominee designated by the Vale Affiliates, the Vale Affiliates may vote all of the voting securities of the Issuer they beneficially own in their sole discretion with respect to any proposal or resolution relating to any merger, consolidation, business combination or other extraordinary transaction involving the Issuer or any of its subsidiaries.

Non-Competition and Non-Solicitation Covenants; Registration Rights; Termination. Under the Investor Agreement, the Vale Affiliates agreed to a three-year non-competition and a two-year employee non-solicitation covenant. In addition, the Vale Affiliates will be entitled to certain demand and customary piggyback registration rights beginning on January 8, 2020.

Except for certain specified provisions, the Investor Agreement will terminate (i) upon the mutual agreement of the parties thereto or (ii) upon the later to occur of (x) January 8, 2021 and (y) the date on which the Vale Affiliates no longer beneficially own any Shares.

References to and the description of the Purchase Agreement and the Investor Agreement set forth above are not intended to be complete and are qualified in their entirety by reference to the full text of the Purchase Agreement and the Investor Agreement, filed as exhibits hereto and incorporated by reference herein.

Item 5. Interest in Securities of the Issuer.

The information contained in rows 7, 8, 9, 10, 11 and 13 on each of the cover pages of this Schedule 13D and the information set forth or incorporated in Items 2, 3, 4 and 6 is incorporated by reference in its entirety into this Item 5.

(a)-(b) The following sentence assumes that there is a total of 385,226,223 shares of Common Stock outstanding following the consummation of the transactions contemplated by the Purchase Agreement (and after giving effect to the issuance of Shares to the Reporting Persons), based on the total number of issued and outstanding shares of Common Stock of the Issuer as of January 8, 2018 as provided by the Issuer to the Reporting Persons on January 8, 2018.

Pursuant to Rule 13d-3 under the Act, Vale may be deemed to beneficially own 34,176,574 shares of Common Stock, which constitutes approximately 8.9% of the outstanding shares of Common Stock, and VFN may be deemed to beneficially own 4,322,003 shares of Common Stock, which constitutes approximately 1.1% of the outstanding shares of Common Stock. To the knowledge of each of the Reporting Persons, without independent verification, none of the persons listed in Schedule I beneficially owns any Common Stock of the Issuer, except that Luciano Siani Pires owns those shares of Common Stock set forth in his filings on Form 4 with respect to his ownership of the Issuer filed from time to time and incorporated by reference herein.

- (c) Except as set forth in this Schedule 13D, none of the Reporting Persons nor, to the knowledge of the Reporting Persons, without independent verification, any person named in Item 2 hereof, has effected any transaction in the Common Stock during the past 60 days.
- (d) To the knowledge of the Reporting Persons, no person other than the Reporting Persons has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the securities beneficially owned by the Reporting Persons identified in this Item 5.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

The information set forth in Items 3, 4 and 5 of this Schedule 13D is incorporated by reference in its entirety into this Item 6.

As more fully described in Items 3 and 4 above, the Reporting Persons and the Issuer are parties to the Purchase Agreement and the Investor Agreement. The Vale Shareholders have entered into a Shareholders' Agreement with respect to Vale (the "Vale Agreement"), which provides them with certain rights with respect to dispositions of securities in excess of an amount that is equal to or higher than one percent (1%) of Vale's net equity, accrued pursuant to Vale's most recent quarterly report. References to and the description of the Vale Agreement set forth above are not intended to be complete and are qualified in their entirety by reference to the full text of the Vale Agreement, incorporated by reference to Vale S.A.'s report on Form 6-K furnished to the SEC on August 15, 2017 (File No. 001-15030). Except as described herein, none of the Reporting Persons nor, to the knowledge of the Reporting Persons, without independent verification, any of the Vale Shareholders or the persons listed on Schedule I or Schedule II hereto has any contracts, arrangements, understandings or relationships (legal or otherwise) with any persons with respect to any securities of the Issuer, including, but not limited to, transfers or voting of any securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies.

Item 7. Material to be Filed as Exhibits.

Exhibit Number Description of Exhibit

Exhibit Number	Description of Exhibit
Exhibit 1	Joint Filing Agreement, dated January 18, 2018, between the Reporting Persons.
	Stock Purchase Agreement, dated as of December 19, 2016, between the Issuer, Vale S.A., and
	Vale Fertilizer Netherlands B.V. (incorporated by reference from Exhibit 2.1 to the Form 8-K filed
Exhibit 2	by Issuer and dated December 19, 2016, File No. 001-32327) as amended by the Stock Purchase
	Agreement Amendment, dated as of December 28, 2017 (incorporated by reference from Exhibit
	2.1 to the Form 8-K filed by the Issuer and dated January 2, 2018, File No. 001-32327).
	Investor Agreement by and among the Issuer, Vale S.A., and Vale Fertilizer Netherlands B.V.,
Exhibit 3	dated as of January 8, 2018 (incorporated by reference from Exhibit 2.3 to the Form 8-K filed by
	the Issuer and dated January 9, 2018, File No. 001-32327).
Exhibit 4	Power of Attorney, dated January 11, 2018.
Exhibit 5	Power of Attorney, dated January 11, 2018.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: January 18, 2018

Vale S.A.

By: /s/ Andre Figueiredo

Title: Director of Investor Relations

Attorney-in-Fact for Vale S.A. pursuant to the Power of Attorney attached as Exhibit 4 to this Schedule I3D

Vale Fertilizer Netherlands B.V.

By: /s/ Andre Figueiredo

Title: Director of Investor Relations

Attorney-in-Fact for Vale Fertilizer Netherlands B.V. pursuant to the Power of Attorney attached as Exhibit M to this Schedule 13D

SCHEDULE I

DIRECTORS AND EXECUTIVE OFFICERS OF VALE S.A.

The following information is provided for each of the directors and executive officers of Vale S.A.:

name,

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons except Toshiya Asahi and Yoshitomo Nishimitsu are citizens of the Federative Republic of Brazil. Mr. Asahi and Mr. Nishimitsu are citizens of Japan.

Except as indicated below, the business address of each director, alternate director and executive officer of Vale is Praia de Botafogo, 186, 20th floor Botafogo, 22250-145 Rio de Janeiro, RJ, Brazil.

EXECUTIVE OFFICERS OF VALE S.A.

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Fabio Chief Executive Officer of Vale

Schvartsman Chief Executive Officer of Vale

Luciano Siani
Pires

Chief Financial Officer and Executive Officer for Investor Relations of Vale since August
2012 and Member of Vale's Executive Risk Management and Disclosure Committees

since August 2012

Peter Poppinga Executive Officer for Ferrous Minerals of Vale since November 2014

Executive director for base metals

Bartolomeo

Luiz Eduardo Osorio Executive director, Sustainability and Institutional Relations

Alexandre
Executive director, Business Support

DIRECTORS OF VALE S.A.

Pereira

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Chairman of Vale's Board of Directors

Gueitiro Matsuo Executive Officer of Private Customers of Banco do Brasil

Genso S.A. from 2014-2015 Praia de Botafogo nº 501, 4º andar,

(Alternate: na Cidade do Rio de Janeiro, RJ,

Gilberto Antonio

President Director of PREVI - Caixa de Previdência dos

Brazil

Vieira) Funcionários do Banco do Brasil (since 2015)

Member of People Committee since November 2017

Fernando Jorge Vice-Chairman of Vale's Board of Directors since January Av. Paulista, nº 1450, 9º andar, na

Buso Gomes 2017; Coordinator of Sustainability Committee and Member of Cidade de São Paulo, SP, como

People Committee since November 2017 membro titular, Brazil

(Alternate: Moacir Nachbar Junior)

Oscar Augusto de Camargo Filho (Alternate: Eduardo de Oliveira Rodrigues Filho)	Managing Partner of CWH Consultoria Empresarial, since 2003; Coordinator of Vale's People Committee since November 2017	Rua Ataulfo de Paiva nº 482, sala 301, Leblon, na Cidade do Rio de Janeiro, RJ, Brazil	
,	Member of Vale's Sustainability Committee		
Dan António Marinho Conrado (Alternate : Arthur	President of PREVI – Caixa de Previdência dos Funcionários do Banco do Brasil from 2012 to 2014	Praia de Botafogo nº 501, 4º andar, na Cidade do Rio de Janeiro, RJ, Brazil	
Prado Silva) Marcel Juviniano	President of the Board of Directors of Valepar from October 2012 to August 2017 Officer of Securities of PREVI— Caixa de Previdência dos Funcionários do Banco do		
Barros	Brasil S.A. since 2012		
(Alternate : Gilmar Dalilo Cezar	Member of the Board of Directors of Valepar from 2012 to August 2017	Praia de Botafogo nº 501, 4º andar, na Cidade do Rio de Janeiro, RJ, Brazil	
Wanderley)	Member of Vale's People Committee since November 2017 Member of Vale's Conformity and Risk		
Sandra Guerra	Committee since November 2017	Rua Diogo Jacome nº 518, bloco 3/232, na	
(Alternate: Vacant)	Member of the Board of Directors of Vix Logística S.A.	Cidade de São Paulo, SP, Brazil	
Lucio Azevedo	Chairman of Railway Labor Unions in the	Rua Miquerinos nº 01, sala 114, Loteamento	
(Alternate: Raimundo Nonato Alves Amorim)		Boa Vista, Quadra 32, Jardim Renascença, na Cidade de São Luis, Brazil	
Eduardo Refinetti	Executive Secretary of the Department of the Treasury since 2016		
Guardia	Chairman of Banco do Brasil S.A.'s Board of Directors since 2016	Ministério da Fazenda, Esplanada dos Ministérios, bloco "P", 4° andar, sala 428, em	
(Alternate: Robson Rocha)	Coordinator of Vale's Finance Committee since November 2017	Brasília, Brazil	
Toshiya Asahi	Vice President of Mittel 9 C. (P. 1) C.	Due : de Flament - :: 9 200 140 1	
(Alternate: Yoshitomo Nishimitsu)	Vice-President of Mitsui & Co. (Brasil) S.A. since July 2015	Praia do Flamengo nº 200, 14º andar, na Cidade do Rio de Janeiro, RJ, Brazil	
Denise Pauli Pavarina	Member of the Board of Directors of Valepar from March to August 2017	Núcleo Cidade de Deus, s/nº, Prédio Vermelho, 4º andar, Vila Yara, na Cidade de	
(Alternate: Luiz		Osasco, Brazil	

Mauricio Leuzinger)

Adjunct Executive Officer of Banco Bradesco S.A. from 2012 to 2015

Managing Executive Officer of Banco Bradesco S.A. since 2015

Member of Vale's Sustainability Committee since November 2017

Member of the Board of Directors of Wiz Soluções e Isabella

Corretagem de Seguros S.A. since April 2016 Saboya

Vice-President of the Board of Directors of Instituto

(Alternate: Brasileiro de Governança Corporativa – IBGC since April Vacant)

2017

Rua Povina Cavalcanti nº 153, apto. 1301, na Cidade do Rio de Janeiro, RJ, Brazil

ALTERNATE DIRECTORS OF VALE S.A.

PRINCIPAL OCCUPATION OR EMPLOYMENT **NAME ADDRESS**

Gilberto Antonio Alternate member of Vale's Board of Directors since Vieira

April 2015

Av. W4 Sul, SEP EQ. 707/907, Conjunto A/B, Lote E, Ed. Contec, em Brasília, Brazil

Alternate Member of Vale's Board of Directors since April 2015 and Member of the Compliance and Risk

Committee

Moacir Nachbar Junior

Member of the Board of Directors of Valepar from July 4° andar, Vila Yara, na Cidade de Osasco,

2015 to August 2017

Núcleo Cidade de Deus, Prédio Vermelho,

Brazil

Managing Executive Officer of Banco Bradesco S.A.

since February 2015

Alternate Member of Vale's Board of Directors since April 2015 and Member of the Compliance and Risk

Committee

Arthur Prado Member of the Board of Directors of Valepar from July Silva

2015 to August 2017

Praia de Botafogo nº 501, 4º andar, na Cidade do Rio de Janeiro, RJ, Brazil

Member of the Board of Directors of Litel

Participações S.A. from July 2015

Alternate Member of Vale's Board of Directors since

April 2015

Alameda do Morro, nº 85, Vila da Serra, no Município de Nova Lima, na Cidade de

Alternate Member of the Board of Directors of Valepar Belo Horizonte, Brazil

from April 2015 to August 2017

Alternate member of Vale's Board of Directors since

November 2017 and Member of Vale's Finance

Gilmar Dalilo

Robson Rocha

Committee since September 2014

Cezar Wanderley

Praia de Botafogo nº 501, 4º andar, Botafogo, Rio de Janeiro, RJ, Brazil

Finance Director of Litel Participações S.A. since

November 2012

Alternate Member of Vale's Board of Directors since Luiz Maurício

Leuzinger May 2012 Rua Almirante Guilhem, nº 378, na Cidade

do Rio de Janeiro, RJ, Brazil

Member of the Board of Directors of Valepar from June 2012 to April 2015 and Alternate Member from 2015 to

August 2017

President Director of Bradespar S.A. from April 2012 to

April 2015

Yoshitomo

Alternate Member of Vale's Board of Directors since

April 2015 and Member of the Compliance and Risk

Committee

Nishimitsu

Praia do Flamengo nº 200, 14º andar, na Cidade do Rio de Janeiro, RJ, Brazil

Alternate Member of Vale's Board of Directors since April

2011 and Member of the Finance Committee

Member of the Board of Directors of Valepar from June Eduardo de

Oliveira Rodrigues 2014 to August 2017 and Alternate Member from April 2008 to January 2012 Filho

Partner Director of CWH Consultoria Empresarial (since

March 2008)

Alves Amorim

President of the Workers' Union in the Iron and Basic Raimundo Nonato

Metals Extraction Industry of Marabá, Parauapebas,

Curionópolis and Canaã dos Carajás

Rua 5, nº 198, Bairro Cidade Nova, no Município de Parauapebas, Brazil

Rua Ataulfo de Paiva nº 482, sala 301,

Leblon, na Cidade do Rio de Janeiro,

RJ. Brazil

DIRECTORS AND EXECUTIVE OFFICERS OF Vale fertilizer netherlands b.v.

The following information is provided for each of the directors and executive officers of Vale Fertilizer Netherlands B.V.:

name.

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

Livia Maria Vellos de Oliveira Castro is a citizen of the Federative Republic of Brazil, and Robert Michiel Forterie and Timo Johannes van Rijn are citizens of the Netherlands.

Except as indicated below, the business address of each director, alternate director and executive officer of Vale Fertilizer Netherlands B.V. is Herikerbergweg 238, Luna ArenA, 1101CM Amsterdam, the Netherlands.

DIRECTORS/EXECUTIVE OFFICERS OF VALE FERTILIZER NETHERLANDS B.V.

PRINCIPAL OCCUPATION OR **NAME ADDRESS**

EMPLOYMENT

Netherlands B.V.

Livia Maria Vellos de Praia de Botafogo, 186, 20th floor Botafogo, Trading Desk Manager Oliveira Castro 22250-145 Rio de Janeiro, RJ, Brazil

Team Leader Accounting at TMF Robert Michiel Forterie

Legal Manager at TMF Netherlands Timo Johannes van Rijn

B.V.

SCHEDULE II

DIRECTORS AND EXECUTIVE OFFICERS OF BNDESPAR

The following information is provided for each of the directors and executive officers of BNDES Participações S.A. — BNDESPAR ("BNDESPAR"):

name.

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons are citizens of the Federative Republic of Brazil.

Except as indicated below, the business address of each director, alternate director and executive officer of BNDESPAR is Av. República do Chile, 100 - Centro, 20.031-917 Rio de Janeiro, RJ, Brazil.

DIRECTORS OF BNDESPAR

PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS **NAME**

Fernando Antônio Ribeiro Soares Director Antônio Carlos de Paiva Futuro Director Hailton Madureira de Almeida Director George Alberto de Aguiar Soares Director Cleiton dos Santos Araújo Director

EXECUTIVE OFFICERS OF BNDESPAR

PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS **NAME**

Ricardo Luiz de Souza Ramos **Executive Officer** Claudia Pimentel Trindade Prates **Executive Officer** Eliane Aleixo Lustosa de Andrade **Executive Officer** Marilene de Oliveira Ramos Múrias dos Santos Executive Officer **Executive Officer** Marcelo de Siqueira Freitas President Paulo Rabello de Castro

Carlos Alexandre Jorge da Costa **Executive Officer**

Carlos Thadeu de Freitas Gomes **Executive Officer**

DIRECTORS AND EXECUTIVE OFFICERS OF BNDES

The following information is provided for each of the directors and executive officers of Banco Nacional de Desenvolvimento Econômico e Social — BNDES ("BNDES"):

· name,

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons are citizens of the Federative Republic of Brazil.

Except as indicated below, the business address of each director, alternate director and executive officer of BNDES is Av. República do Chile, 100 - Centro, 20.031-917 Rio de Janeiro, RJ, Brazil.

DIRECTORS OF BNDES

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Fernando Antônio Ribeiro Soares Director Antônio Carlos de Paiva Futuro Director Hailton Madureira de Almeida Director George Alberto de Aguiar Soares Director Cleiton dos Santos Araújo Director

EXECUTIVE OFFICERS OF BNDES

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Ricardo Luiz de Souza Ramos Executive Officer
Claudia Pimentel Trindade Prates Executive Officer
Eliane Aleixo Lustosa de Andrade Executive Officer
Marilene de Oliveira Ramos Múrias dos Santos
Marcelo de Siqueira Freitas Executive Officer

Paulo Rabello de Castro President

Carlos Alexandre Jorge da Costa Executive Officer
Carlos Thadeu de Freitas Gomes Executive Officer

DIRECTORS AND EXECUTIVE OFFICERS OF BRADESPAR

The following information is provided for each of the directors and executive officers of Bradespar S.A. ("Bradespar"):

name,

· residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons are citizens of the Federative Republic of Brazil.

Except as indicated below, the business address of each director, alternate director and executive officer of Bradespar is Núcleo Cidade de Deus, Vila Yara, 06029-900 Osasco, SP, Brazil.

DIRECTORS OF BRADESPAR

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Lázaro de Mello Brandão Chairman Luiz Carlos Trabuco Cappi Vice Chairman Denise Aguiar Alvarez Board Member João Aguiar Alvarez Board Member

Carlos Alberto Rodrigues

Guilherme

Board Member

Milton Matsumoto Board Member José Alcides Munhoz Board Member Aurélio Conrado Boni Board Member

André Leal Faoro Board Member Rua Araújo Porto Alegre, 36, sala 1.102, 20030-013

Rio de Janeiro, RJ, Brazil

EXECUTIVE OFFICERS OF BRADESPAR

NAME $\begin{array}{c} \text{PRINCIPAL OCCUPATION OR} \\ \text{EMPLOYMENT} \end{array} \quad \text{ADDRESS} \end{array}$

Fernando Jorge Buso Chief Executive Officer Avenida Paulista, 1450, 9° andar, 01310-917 São

Gomes Paulo, SP Brazil Johan Albino Ribeiro Executive Officer Same as above

DIRECTORS AND EXECUTIVE OFFICERS OF LITEL

The following information is provided for each of the directors and executive officers of Litel Participações S.A. (<u>"Litel"</u>):

· name,

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons are citizens of the Federative Republic of Brazil.

Except as indicated below, the business address of each director, alternate director and executive officer of Litel is Av. República do Chile, 100 - Centro, 20.031-917 Rio de Janeiro, RJ, Brazil.

DIRECTORS OF LITEL

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Chairman of Litel

Arthur Prado Silva Executive Manager of PREVI - Caixa de Previdência dos Funcionários do

Branco do Brasil ("Previ") Board Member of Litel

Gilmar Dalilo Cezar

Wanderley

Manager of Securities Interests of Previ

Board Member of Litel

João Ernesto Lima

Mesquita

Manager of Securities Interests of Previ

Board Member of Litel

Carlos Antônio Vieira

Fernandes CEO - Chief Executive Officer of Funcef - Fundação dos Economiários

Federais

EXECUTIVE OFFICERS OF LITEL

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

CEO - Chief Executive Officer of Litel

Praia de Botafogo, nº 501, 4º andar, 22250-040 Rio

de Janeiro, RJ, Brazil

President of Previ

CFO - Chief Financial Officer of Litel

Gilmar Dalilo Cezar

Gueitiro Matsuo Genso

Wanderley Manager of Securities Interests of Previ

Administrative Officer of Litel

Renato Proença Lopes

Director of Participations at Previ Executive Officer of Litel

Marcel Juviniano Barros

Officer of Securities at Previ

Directors and executive officers of Mitsui

The following information is provided for each of the directors and executive officers of Mitsui & Co., Ltd. ("Mitsui"):

· name,

residence or business address,

present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted, and

All of the following persons, except Mr. Samuel Walsh and Ms. Jenifer Rogers are citizens of Japan. Mr. Samuel Walsh is a citizen of Australia and Ms. Jenifer Rogers is a citizen of United States of America.

Except as indicated below, the business address of each director, alternate director and executive officer of Mitsui is Nippon Life Marunouchi Garden Tower, 1-3, Marunouchi, 1-chome, Chiyoda-ku, Tokyo 100-8631, Japan.

DIRECTORS OF MITSUI

NAME PRINCIPAL OCCUPATION OR EMPLOYMENT ADDRESS

Masami Iijima Chairman

Tatsuo Yasunaga Representative Director, President and Chief Executive Officer

Hiroyuki Kato Representative Director, Executive Vice President Yoshihiro Hombo Representative Director, Executive Vice President Makoto Suzuki Representative Director, Executive Vice President

Keigo Matsubara Representative Director, Senior Executive Managing Officer Shinsuke Fujii Representative Director, Senior Executive Managing Officer Nobuaki Kitamori Representative Director, Senior Executive Managing Officer

Toshiro Muto Director Izumi Kobayashi Director Jenifer Rogers Director Hirotaka Takeuchi Director Samuel Walsh Director

EXECUITVE OFFICERS OF MITSUI

NAME	PRINCIPAL OCCUPATION OR EMPLOYMENT	ADDRESS
Tatsuo	President and Chief Executive Officer; Chairman, Internal Controls Committee; Head	
Yasunaga	of Crisis Management Headquarters	
Hiroyuki	Executive Vice President; Iron & Steel Products Business Unit; Mineral & Metal	
Kato	Resources Business Unit; Energy Business Unit I; Energy Business Unit II	
Yoshihiro	Executive Vice President; Basic Materials Business Unit; Performance Materials	
Hombo	Business Unit; Nutrition & Agriculture Business Unit; Food Business Unit; Food &	
Homeo	Retail Management Business Unit	
	Executive Vice President; Chief Compliance Officer; Corporate Staff Unit (Secretariat,	
	Audit & Supervisory Board Member Division, Human Resources & General Affairs	
Makoto	Division, Legal Division, Corporate Logistics Division, New Head Office Building	
Suzuki	Development Department); Business Continuity Management; New Headquarter	
	Project; Chairman, Compliance Committee; Chairman, Diversity Promotion	
	Committee; Head of Emergency Management Headquarter Executive Vice President; Chief Administrative Officer; Chief Information Officer;	
Satoshi Tanaka	Chief Privacy Officer; Corporate Staff Unit (Corporate Planning & Strategy Division,	
	Investment Administrative Division, Information Technology Promotion Division,	
	Regional Business Promotion Division, Corporate Communications Division,	
	Environmental Social Contribution Division, Business Supporting Unit (Each Planning	
	& Administrative Division)), Domestic Offices and Branches; HQ Overseen Region;	
	Business Innovation & Incubation; Environmental Matters; Chairman, Information	
	Strategy Committee; Chairman, Sustainability Committee; Chairman, Business	
	Innovation Committee	
		8th and 9th Floors,
		1 St. Martin's Le
Atsushi	Senior Executive Managing Officer; Chief Operating Officer of EMEA (Europe, the	Grand, London
Kume	Middle East and Africa) Business Unit	EC1A 4AS,
Kuiiic	Middle Dast and Milea Dusiness Out	United Kingdom

Takeshi Kanamori Senior Executive Managing Officer; Chief Representative of 8th Floor, China World Tower, 1 Mitsui & Co., Ltd. in China; Chairman & Managing Director of Jianguomenwai Avenue, Beijing

Mitsui & Co., Ltd. In China 100004, China

200 Park Avenue New York, NY

Yasushi Takahashi Senior Executive Managing Officer

Senior Executive Managing Officer; Chief Financial Officer;

Corporate Staff Unit (CFO Planning & Administrative Division,

Keigo Global Controller Division, Finance Division, Risk

Management Division, Investor Relations Division, Business

Supporting Unit (Financial Management & Advisory Division I,

II, III, IV)); Chairman, Disclosure Committee; Chairman,

J-SOX Committee

Senior Executive Managing Officer; Healthcare & Service

Shinsuke Business Unit; Consumer Business Unit; Corporate

Fujii Development Business Unit; Chairman, Portfolio Management

Committee

Taku Senior Executive Managing Officer; Chief Operating Officer of 12 Marina View, #31-01 Asia Square

Morimoto Asia Pacific Business Unit Tower 2, Singapore 018961

Yasuyuki Executive Managing Officer; Chief Operating Officer of

Fujitani Corporate Development Business Unit

Executive Managing Officer; Chief Digital

Nobuaki
Vitamoni

Officer, Infrastructure Projects Business Unit; Integrated
Transportation Systems Business Unit I; Integrated

Kitamori

Transportation Systems Business Unit I; IT & Communication

Business Unit; Digital Transformation

Motoo Ono Executive Managing Officer; General Manager of Human

Resources & General Affairs Division

Yukio Executive Managing Officer; Chairman & Managing Director Level 15, 120 Collins Street,

Takebe of Mitsui & Co. (Australia) Ltd. Melbourne, 3000 Victoria, Australia 3-33, Nakanoshima 2-chome, Kita-ku,

5-55, Ivakanosimia 2-chome,

Shinsuke Executive Managing Officer; General Manager of Osaka Office Osaka 530-0005, Japan

Noboru Executive Managing Officer; Chief Operating Officer of Iron &

Katsu Steel Products Business Unit

Kitagawa

Executive Managing Officer; General Manager of Finance Takakazu

Uchida Division

Plot No. D-1, Fourth Floor, Salcon Ras

Executive Managing Officer; Chief Representative of Mitsui Vilas, District Centre, Saket, New Delhi Hiromichi

& Co., Ltd. in South West Asia; Managing Director of 1100017, India

Yagi Mitsui & Co. India Pvt. Ltd.

Shinichiro Executive Managing Officer; Chief Operating Officer of

Omachi Mineral & Metal Resources Business Unit

Hiroyuki Executive Managing Officer; Chief Operating Officer of

Tsurugi Energy Business Unit I

Hirotatsu Executive Managing Officer; Chief Operating Officer of

Fujiwara Energy Business Unit II

Executive Managing Officer; Chief Operating Officer of 3-1, Ohtemachi 1-chome, Chiyoda-ku, Kenichi Hori Nutrition & Agriculture Business Unit

Tokyo 100-8631, Japan