



Research article

The state of the ‘Prosperity’ pillar by 2022: A partial ordering-based analysis of the sustainable development goals 7–11

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Supplementary

Appendix

Appendix A. ISO3 country code for the included countries.

Country Code ISO3	Country	Country Code ISO3	Country
AFG	Afghanistan	LBR	Liberia
AGO	Angola	LBY	Libya
ALB	Albania	LCA	St. Lucia
AND	Andorra	LIE	Liechtenstein
ARE	United Arab Emirates	LKA	Sri Lanka
ARG	Argentina	LSO	Lesotho
ARM	Armenia	LTU	Lithuania
ATG	Antigua and Barbuda	LUX	Luxembourg
AUS	Australia	LVA	Latvia

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Country Code ISO3	Country	Country Code ISO3	Country
AUT	Austria	MAR	Morocco
AZE	Azerbaijan	MCO	Monaco
BDI	Burundi	MDA	Moldova
BEL	Belgium	MDG	Madagascar
BEN	Benin	MDV	Maldives
BFA	Burkina Faso	MEX	Mexico
BGD	Bangladesh	MHL	Marshall Islands
BGR	Bulgaria	MKD	North Macedonia
BHR	Bahrain	MLI	Mali
BHS	Bahamas, The	MLT	Malta
BIH	Bosnia and Herzegovina	MMR	Myanmar
BLR	Belarus	MNE	Montenegro
BLZ	Belize	MNG	Mongolia
BOL	Bolivia	MOZ	Mozambique
BRA	Brazil	MRT	Mauritania
BRB	Barbados	MUS	Mauritius
BRN	Brunei Darussalam	MWI	Malawi
BTN	Bhutan	MYS	Malaysia
BWA	Botswana	NAM	Namibia
CAF	Central African Republic	NER	Niger
CAN	Canada	NGA	Nigeria
CHE	Switzerland	NIC	Nicaragua
CHL	Chile	NLD	Netherlands
CHN	China	NOR	Norway
CIV	Cote d'Ivoire	NPL	Nepal
CMR	Cameroon	NRU	Nauru
COD	Congo, Dem. Rep.	NZL	New Zealand
COG	Congo, Rep.	OMN	Oman
COL	Colombia	PAK	Pakistan
COM	Comoros	PAN	Panama
CPV	Cabo Verde	PER	Peru
CRI	Costa Rica	PHL	Philippines
CUB	Cuba	PLW	Palau
CYP	Cyprus	PNG	Papua New Guinea
CZE	Czech Republic	POL	Poland
DEU	Germany	PRK	Korea, Dem. Rep.
DJI	Djibouti	PRT	Portugal
DMA	Dominica	PRY	Paraguay

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Country Code ISO3	Country	Country Code ISO3	Country
DNK	Denmark	QAT	Qatar
DOM	Dominican Republic	ROU	Romania
DZA	Algeria	RUS	Russian Federation
ECU	Ecuador	RWA	Rwanda
EGY	Egypt, Arab Rep.	SAU	Saudi Arabia
ERI	Eritrea	SDN	Sudan
ESP	Spain	SEN	Senegal
EST	Estonia	SGP	Singapore
ETH	Ethiopia	SLB	Solomon Islands
FIN	Finland	SLE	Sierra Leone
FJI	Fiji	SLV	El Salvador
FRA	France	SMR	San Marino
FSM	Micronesia, Fed. Sts.	SOM	Somalia
GAB	Gabon	SRB	Serbia
GBR	United Kingdom	SSD	South Sudan
GEO	Georgia	STP	Sao Tome and Principe
GHA	Ghana	SUR	Suriname
GIN	Guinea	SVK	Slovak Republic
GMB	Gambia, The	SVN	Slovenia
GNB	Guinea-Bissau	SWE	Sweden
GNQ	Equatorial Guinea	SWZ	Eswatini
GRC	Greece	SYC	Seychelles
GRD	Grenada	SYR	Syrian Arab Republic
GTM	Guatemala	TCD	Chad
GUY	Guyana	TGO	Togo
HND	Honduras	THA	Thailand
HRV	Croatia	TJK	Tajikistan
HTI	Haiti	TKM	Turkmenistan
HUN	Hungary	TLS	Timor-Leste
IDN	Indonesia	TON	Tonga
IND	India	TTO	Trinidad and Tobago
IRL	Ireland	TUN	Tunisia
IRN	Iran, Islamic Rep.	TUR	Turkey
IRQ	Iraq	TUV	Tuvalu
ISL	Iceland	TZA	Tanzania
ISR	Israel	UGA	Uganda
ITA	Italy	UKR	Ukraine
JAM	Jamaica	URY	Uruguay

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Country Code ISO3	Country	Country Code ISO3	Country
JOR	Jordan	USA	United States
JPN	Japan	UZB	Uzbekistan
KAZ	Kazakhstan	VCT	St. Vincent and the Grenadines
KEN	Kenya	VEN	Venezuela, RB
KGZ	Kyrgyz Republic	VNM	Vietnam
KHM	Cambodia	VUT	Vanuatu
KIR	Kiribati	WSM	Samoa
KNA	St. Kitts and Nevis	YEM	Yemen, Rep.
KOR	Korea, Rep.	ZAF	South Africa
KWT	Kuwait	ZMB	Zambia
LAO	Lao PDR	ZWE	Zimbabwe
LBN	Lebanon		

Appendix B. MIS for countries excluding countries with missing data.
(green = 3, yellow = 2, orange = 1, red = 0)

ID	SDG7	SDG8	SDG9	SDG10	SDG11
AGO	0	0	0	0	0
ALB	2	0	1	1	1
ARE	1	0	2	2	2
ARG	1	0	1	0	1
ARM	1	0	1	1	1
AUS	1	1	1	1	2
AUT	3	2	2	2	2
AZE	1	0	1	3	2
BDI	0	0	0	1	0
BEL	1	2	2	2	2
BEN	0	1	0	0	0
BFA	0	0	0	1	0
BGD	1	1	1	1	0
BGR	2	2	1	0	1
BIH	1	1	1	1	0
BLR	0	0	1	3	1
BOL	1	1	0	0	1
BRA	3	0	1	0	1
BTN	2	0	1	1	2
BWA	0	0	1	0	1
CAF	0	0	0	0	0
CAN	2	1	1	2	2
CHE	3	1	1	1	2
CHL	2	1	0	0	1
CHN	1	1	2	1	1
CIV	0	1	0	0	0
CMR	0	0	0	0	0
COD	0	0	0	0	0
COG	0	0	0	0	0
COL	2	0	0	0	1
COM	0	0	0	0	1
CPV	1	0	1	0	1
CRI	3	1	0	0	2
CYP	1	2	1	2	1
CZE	1	2	1	2	2
DEU	2	2	2	2	2
DJI	0	0	0	0	0

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
DNK	3	2	2	3	2
DOM	1	1	1	0	1
DZA	0	0	1	3	1
ECU	2	1	1	0	2
EGY	1	0	1	2	1
ESP	2	0	1	1	2
EST	1	2	1	1	2
ETH	0	0	0	1	0
FIN	3	2	2	2	2
FJI	0	1	2	1	2
FRA	2	1	2	2	2
GAB	1	0	1	1	0
GBR	2	1	2	1	2
GEO	3	1	1	1	1
GHA	1	1	1	0	0
GIN	0	1	0	1	0
GMB	0	0	0	1	1
GNB	0	1	0	0	0
GRC	1	0	1	2	1
GTM	1	0	0	0	1
HND	1	0	0	0	1
HRV	2	2	1	2	1
HTI	0	0	0	0	0
HUN	1	1	1	2	2
IDN	1	1	1	1	0
IND	1	0	0	1	0
IRL	1	2	2	2	2
IRN	0	0	1	0	1
IRQ	0	0	1	2	0
ISL	3	1	2	3	1
ISR	1	1	2	1	2
ITA	2	1	0	1	1
JAM	0	1	1	0	1
JOR	1	0	1	1	1
JPN	1	2	3	1	2
KAZ	0	1	1	3	1
KEN	0	1	0	0	0
KGZ	2	0	1	2	2
KOR	1	2	2	0	2

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
LAO	1	1	0	1	1
LBN	1	0	1	2	0
LBR	0	0	0	1	0
LCA	2	0	1	0	1
LKA	0	1	0	1	1
LSO	0	0	0	0	0
LTU	1	2	0	0	2
LUX	0	1	1	2	2
LVA	2	2	0	0	2
MAR	0	0	1	1	1
MDA	2	0	1	3	1
MDG	0	0	0	0	0
MDV	2	1	1	2	1
MEX	1	0	0	0	1
MKD	1	1	1	1	1
MLI	0	0	0	1	0
MLT	1	1	1	2	2
MMR	0	0	0	2	0
MNE	2	1	1	1	0
MNG	0	1	1	1	0
MOZ	0	0	0	0	1
MRT	0	0	0	1	0
MUS	1	0	1	1	2
MWI	0	0	0	0	1
MYS	0	1	2	0	2
NAM	0	0	0	0	0
NER	0	0	0	1	0
NGA	0	0	0	1	0
NIC	1	0	0	0	1
NLD	1	2	2	2	2
NOR	3	1	2	3	2
NPL	0	1	0	1	0
NZL	3	2	1	1	2
PAK	0	0	0	1	0
PAN	2	0	1	0	1
PER	2	0	1	0	1
PHL	1	0	0	0	1
PNG	0	0	0	0	1
POL	0	2	1	2	1

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
PRT	3	2	1	2	2
PRY	2	1	1	0	1
ROU	2	2	1	1	2
RUS	0	2	1	1	2
RWA	0	0	0	0	0
SDN	0	0	0	1	0
SEN	0	0	0	0	0
SLE	0	0	0	1	0
SLV	2	0	0	1	1
SOM	0	0	0	1	0
SRB	1	1	1	1	1
SSD	0	0	0	0	0
STP	0	0	0	0	0
SVK	2	1	0	2	1
SVN	2	3	1	2	2
SWE	3	2	2	2	2
SWZ	1	0	0	0	1
SYR	0	0	0	1	0
TCD	0	0	0	0	0
TGO	0	0	0	0	0
THA	1	1	1	1	1
TJK	2	1	0	1	1
TLS	1	2	0	2	1
TUN	1	0	1	1	0
TUR	2	0	0	0	1
TZA	0	0	0	0	0
UGA	0	0	0	0	0
UKR	1	1	1	3	1
URY	3	0	1	1	2
USA	1	1	2	0	2
UZB	0	0	1	1	0
VEN	2	1	0	0	0
VNM	2	1	1	1	1
VUT	0	2	1	1	2
WSM	0	1	0	1	2
YEM	0	0	0	1	0
ZAF	0	0	1	0	1
ZMB	0	0	0	0	0
ZWE	0	0	0	0	0

Appendix C. MIS for all countries including countries with missing data.
(green = 3, yellow = 2, orange = 1, red = 0, grey = -1)

ID	SDG7	SDG8	SDG9	SDG10	SDG11
AFG	0	0	0	-1	0
AGO	0	0	0	0	0
ALB	2	0	1	1	1
AND	3	-1	1	-1	2
ARE	1	0	2	2	2
ARG	1	0	1	0	1
ARM	1	0	1	1	1
ATG	2	2	1	-1	-1
AUS	1	1	1	1	2
AUT	3	2	2	2	2
AZE	1	0	1	3	2
BDI	0	0	0	1	0
BEL	1	2	2	2	2
BEN	0	1	0	0	0
BFA	0	0	0	1	0
BGD	1	1	1	1	0
BGR	2	2	1	0	1
BHR	1	1	1	-1	1
BHS	2	0	1	-1	-1
BIH	1	1	1	1	0
BLR	0	0	1	3	1
BLZ	2	0	1	-1	1
BOL	1	1	0	0	1
BRA	3	0	1	0	1
BRB	2	1	1	-1	-1
BRN	0	1	1	-1	3
BTN	2	0	1	1	2
BWA	0	0	1	0	1
CAF	0	0	0	0	0
CAN	2	1	1	2	2
CHE	3	1	1	1	2
CHL	2	1	0	0	1
CHN	1	1	2	1	1
CIV	0	1	0	0	0
CMR	0	0	0	0	0
COD	0	0	0	0	0
COG	0	0	0	0	0

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
COL	2	0	0	0	1
COM	0	0	0	0	1
CPV	1	0	1	0	1
CRI	3	1	0	0	2
CUB	2	3	0	-1	1
CYP	1	2	1	2	1
CZE	1	2	1	2	2
DEU	2	2	2	2	2
DJI	0	0	0	0	0
DMA	1	-1	1	-1	-1
DNK	3	2	2	3	2
DOM	1	1	1	0	1
DZA	0	0	1	3	1
ECU	2	1	1	0	2
EGY	1	0	1	2	1
ERI	0	1	0	-1	0
ESP	2	0	1	1	2
EST	1	2	1	1	2
ETH	0	0	0	1	0
FIN	3	2	2	2	2
FJI	0	1	2	1	2
FRA	2	1	2	2	2
FSM	1	-1	0	0	-1
GAB	1	0	1	1	0
GBR	2	1	2	1	2
GEO	3	1	1	1	1
GHA	1	1	1	0	0
GIN	0	1	0	1	0
GMB	0	0	0	1	1
GNB	0	1	0	0	0
GNQ	0	1	0	-1	0
GRC	1	0	1	2	1
GRD	2	-1	1	-1	-1
GTM	1	0	0	0	1
GUY	1	0	0	-1	1
HND	1	0	0	0	1
HRV	2	2	1	2	1
HTI	0	0	0	0	0
HUN	1	1	1	2	2

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
IDN	1	1	1	1	0
IND	1	0	0	1	0
IRL	1	2	2	2	2
IRN	0	0	1	0	1
IRQ	0	0	1	2	0
ISL	3	1	2	3	1
ISR	1	1	2	1	2
ITA	2	1	0	1	1
JAM	0	1	1	0	1
JOR	1	0	1	1	1
JPN	1	2	3	1	2
KAZ	0	1	1	3	1
KEN	0	1	0	0	0
KGZ	2	0	1	2	2
KHM	0	0	0	-1	1
KIR	0	-1	0	1	1
KNA	2	-1	2	-1	-1
KOR	1	2	2	0	2
KWT	1	0	1	-1	1
LAO	1	1	0	1	1
LBN	1	0	1	2	0
LBR	0	0	0	1	0
LBY	0	0	0	-1	1
LCA	2	0	1	0	1
LIE	-1	-1	2	-1	-1
LKA	0	1	0	1	1
LSO	0	0	0	0	0
LTU	1	2	0	0	2
LUX	0	1	1	2	2
LVA	2	2	0	0	2
MAR	0	0	1	1	1
MCO	3	-1	1	-1	2
MDA	2	0	1	3	1
MDG	0	0	0	0	0
MDV	2	1	1	2	1
MEX	1	0	0	0	1
MHL	2	-1	0	-1	-1
MKD	1	1	1	1	1
MLI	0	0	0	1	0

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
MLT	1	1	1	2	2
MMR	0	0	0	2	0
MNE	2	1	1	1	0
MNG	0	1	1	1	0
MOZ	0	0	0	0	1
MRT	0	0	0	1	0
MUS	1	0	1	1	2
MWI	0	0	0	0	1
MYS	0	1	2	0	2
NAM	0	0	0	0	0
NER	0	0	0	1	0
NGA	0	0	0	1	0
NIC	1	0	0	0	1
NLD	1	2	2	2	2
NOR	3	1	2	3	2
NPL	0	1	0	1	0
NRU	2	-1	1	2	1
NZL	3	2	1	1	2
OMN	0	1	1	-1	1
PAK	0	0	0	1	0
PAN	2	0	1	0	1
PER	2	0	1	0	1
PHL	1	0	0	0	1
PLW	3	-1	0	-1	2
PNG	0	0	0	0	1
POL	0	2	1	2	1
PRK	0	1	0	-1	0
PRT	3	2	1	2	2
PRY	2	1	1	0	1
QAT	0	1	1	-1	1
ROU	2	2	1	1	2
RUS	0	2	1	1	2
RWA	0	0	0	0	0
SAU	1	1	1	-1	1
SDN	0	0	0	1	0
SEN	0	0	0	0	0
SGP	1	1	3	-1	2
SLB	0	-1	0	1	1
SLE	0	0	0	1	0

Continued on next page

ID	SDG7	SDG8	SDG9	SDG10	SDG11
SLV	2	0	0	1	1
SMR	3	-1	1	-1	-1
SOM	0	0	0	1	0
SRB	1	1	1	1	1
SSD	0	0	0	0	0
STP	0	0	0	0	0
SUR	2	0	1	-1	1
SVK	2	1	0	2	1
SVN	2	3	1	2	2
SWE	3	2	2	2	2
SWZ	1	0	0	0	1
SYC	3	-1	1	1	-1
SYR	0	0	0	1	0
TCD	0	0	0	0	0
TGO	0	0	0	0	0
THA	1	1	1	1	1
TJK	2	1	0	1	1
TKM	0	0	0	-1	1
TLS	1	2	0	2	1
TON	1	-1	1	1	2
TTO	0	1	0	-1	1
TUN	1	0	1	1	0
TUR	2	0	0	0	1
TUV	2	-1	0	1	2
TZA	0	0	0	0	0
UGA	0	0	0	0	0
UKR	1	1	1	3	1
URY	3	0	1	1	2
USA	1	1	2	0	2
UZB	0	0	1	1	0
VCT	2	0	1	-1	-1
VEN	2	1	0	0	0
VNM	2	1	1	1	1
VUT	0	2	1	1	2
WSM	0	1	0	1	2
YEM	0	0	0	1	0
ZAF	0	0	1	0	1
ZMB	0	0	0	0	0
ZWE	0	0	0	0	0

Appendix D. Trend data excluding SDG 10.

(↑ = 3, ↗ = 2, → = 1, and ↓ = 0)

ID	SDG7	SDG8	SDG9	SDG11
AGO	2	1	1	1
ALB	3	2	2	1
ARE	2	2	3	2
ARG	2	1	1	2
ARM	2	2	2	2
AUS	2	1	2	2
AUT	3	2	2	3
AZE	1	1	1	2
BDI	1	3	1	2
BEL	2	3	2	2
BEN	1	3	2	1
BFA	1	2	2	1
BGD	2	2	2	2
BGR	2	2	2	2
BIH	2	2	2	1
BLR	2	2	2	2
BOL	2	2	2	1
BRA	3	1	2	2
BTN	3	3	2	2
BWA	1	1	3	1
CAF	1	2	1	0
CAN	2	2	3	2
CHE	3	2	2	2
CHL	3	2	2	3
CHN	2	2	3	2
CIV	2	2	2	0
CMR	2	2	2	1
COD	2	2	2	1
COG	2	2	1	0
COL	2	2	2	1
COM	2	0	1	1
CPV	2	1	2	2
CRI	3	1	2	2
CYP	2	3	2	2
CZE	2	3	2	3
DEU	3	3	3	2
DJI	1	1	2	1

Continued on next page

ID	SDG7	SDG8	SDG9	SDG11
DNK	3	2	3	2
DOM	2	1	2	1
DZA	2	1	2	0
ECU	3	2	3	3
EGY	1	2	2	2
ESP	2	3	2	2
EST	2	2	2	2
ETH	2	2	1	1
FIN	3	3	2	2
FJI	2	3	2	2
FRA	2	2	3	2
GAB	3	2	2	1
GBR	3	2	3	1
GEO	3	2	2	2
GHA	2	2	2	1
GIN	2	2	1	0
GMB	1	1	1	1
GNB	1	1	1	1
GRC	2	3	2	2
GTM	2	2	1	1
HND	2	1	2	2
HRV	3	3	3	1
HTI	1	2	1	0
HUN	2	2	3	2
IDN	2	3	2	1
IND	2	2	2	0
IRL	3	3	2	2
IRN	1	2	3	1
IRQ	2	2	2	1
ISL	3	2	2	2
ISR	2	2	3	2
ITA	3	2	3	2
JAM	1	3	1	1
JOR	2	2	3	1
JPN	2	3	3	2
KAZ	1	2	2	1
KEN	2	1	2	1
KGZ	2	2	2	2
KOR	2	2	2	2

Continued on next page

ID	SDG7	SDG8	SDG9	SDG11
LAO	2	3	2	2
LBN	2	1	2	0
LBR	1	2	1	0
LCA	2	2	2	2
LKA	2	1	2	2
LSO	1	1	1	1
LTU	2	3	2	2
LUX	2	2	1	3
LVA	3	2	2	2
MAR	2	1	2	1
MDA	1	2	1	2
MDG	1	2	1	1
MDV	2	3	2	3
MEX	2	1	1	2
MKD	1	3	1	1
MLI	2	2	1	2
MLT	2	3	2	3
MMR	2	2	2	1
MNE	2	2	2	1
MNG	1	2	2	1
MOZ	2	3	0	2
MRT	1	1	2	1
MUS	1	1	3	2
MWI	1	2	1	1
MYS	2	3	2	2
NAM	1	2	2	0
NER	1	2	1	1
NGA	1	1	1	0
NIC	2	1	2	1
NLD	2	3	3	3
NOR	3	2	2	3
NPL	1	2	2	1
NZL	3	2	2	2
PAK	1	2	1	1
PAN	2	2	2	3
PER	3	2	1	1
PHL	2	2	2	1
PNG	1	3	1	1
POL	1	2	3	1

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ID	SDG7	SDG8	SDG9	SDG11
PRT	3	2	3	2
PRY	2	1	2	2
ROU	1	2	2	1
RUS	2	2	2	2
RWA	2	3	2	1
SDN	2	1	2	1
SEN	2	2	2	2
SLE	1	1	1	1
SLV	2	1	1	2
SOM	1	1	1	1
SRB	1	2	2	2
SSD	1	1	1	1
STP	2	1	1	1
SVK	3	3	2	2
SVN	2	3	3	2
SWE	3	3	2	2
SWZ	2	1	1	1
SYR	1	1	1	1
TCD	1	2	1	0
TGO	1	3	2	0
THA	2	2	3	1
TJK	3	2	1	2
TLS	2	3	1	2
TUN	2	1	2	1
TUR	2	1	3	2
TZA	1	2	1	2
UGA	2	2	2	1
UKR	2	2	2	1
URY	3	2	2	3
USA	2	2	3	2
UZB	1	1	2	2
VEN	3	2	1	1
VNM	1	2	2	2
VUT	1	3	2	1
WSM	1	1	2	1
YEM	1	2	1	1
ZAF	1	1	2	2
ZMB	2	1	1	1
ZWE	2	2	1	0

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ID	SDG7	SDG8	SDG9	SDG11
E_S_Asia	2	2	2	1
E_Euro_Asia	1	2	2	1
LAC	3	1	2	2
MENA	2	2	2	1
OECD	2	2	3	2
SIDS	1	1	1	1
Africa	1	2	1	1
LIC	1	2	1	1
LMIC	2	2	2	1
UMIC	2	1	3	2
HIC	2	2	3	2



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