

Index

- Absorptive capacity, 370, 377, 379, 381, 386
- Activity-based innovation centres, 40–41, 65, 75
- Africa Innovation Summit (AIS), 2, 16, 447, 448–449
- bi-annual, 2
 - green industrialisation and green urban development, 16
 - quadruple model, 448, 449
- African countries, emergence of innovations systems in, 430, 436
- African culture, 27, 224, 431
- African development agenda, 28, 30
- African Economic Outlook, 29, 32
- African economies, 30, 239–240, 385, 389–390
- Afro-pessimism, 1
- Agricultural by-products, 285–286, 288, 297, 299, 301–308, 306, 308, 444
- critical factors of constraint, 302–305
 - critical factors of success, 301
 - in Egypt
 - eliminating poverty, 287–288
 - greenhouse effect, 287
 - industries, raw materials and fuel, 288–289
 - innovative initiatives of, 292–293
 - Jozour foundation, 288
 - palm remnants industry in, 289–292
- Agricultural research, 45, 339–340
- Agricultural residues, 283–289, 294, 297, 299–300
- AIS. *See Africa Innovation Summit (AIS)*
- Algeria, steel sector in
- emerging innovation hub (EIH) identification, 362
 - importance of best practices, 364–366
 - incentive system, 368–369
 - initial stage, 369
 - institutional and political environment, 361–362
 - intellectual property management, 364
 - learning and technology transfer, 366–367
 - new working method, 369–370
 - organizational factor, 363–364
 - innovation process, 351–361
 - policy lessons, 377–383
 - policy recommendations, 383–388
 - protagonists, and critical issues, 344–351
- Anti-innovation, 143
- Automated teller machine (ATM), 180
- Autonomous Mobile Processing Unit (AMPU), 259, 260
- Bandwidth barn (BWB), 72
- Business
- explicit, 41–42

- innovation-based opportunities, 39
registration, 109, 136
- Cabo Verde, national innovation system
aims and scope of the study, 102–105
- Business-in-a-Day program, 105
- challenges, 104
- development strategy, 103
- diaspora brain gain, 131
- electronic government, 105–106, 120–131
- industrial policy, 161–162
- innovation ecosystem macro and micro factors, 117–120
- institutional autonomy, 161
- minimizing the price of success, 161
- political foundations of success, 116–117
- politics right, 160–161
- promoting interaction and collaboration, 163
- public sector, 162–163
- telecommunications infrastructure, 132–133
- unlikely success story, 112–116
- Cape Craft and Design Institute (CCDI), 82
- Capital gains tax (CGT), 200
- Cassava
bread, 258, 265, 275, 440
challenges
commercialization, 271–272
documentation, 270–271
industry bodies, 271–272
public private collaboration, 268–270
public research collaboration, 267–268
triple helix, 273
- commercialization, 245, 251–252
- commercialization innovations, 249
- flour, high quality, 257–258, 262
- harvester, 261, 263
- industrialization, 258
- industry, 10, 239
- innovation, 247, 262, 275
developing, 274
disseminating, 273
- largest producer of, 239, 244
- processing, 252, 254–255, 262, 267
- products, 251, 255, 265, 275, 445
- recommendations
political economy, 274–275
standards, 275–276
system wide innovations, 273–274
- trust innovations, 276
- roots, 242, 256
- starch, 241–242
- value chain, 239, 241, 244, 262, 276, 279
- Cassava innovation
in Nigeria, 263
- regional integration, 254
- Cassava processing equipment, 265, 269, 270
development, 260, 262
manufacture, 254, 270
- Cassava production, 240, 243, 273
innovation in, 241, 244
- CCDI. *See* Cape Craft and Design Institute (CCDI)
- Central Bank of Kenya (CBK), 169, 185, 187, 205, 445
- CGT. *See* Capital gains tax (CGT)
- CMD. *See* Cassava mosaic disease (CMD)
- Common Fund for Commodities (CFC), 252

- Communications Commission of Kenya (CCK), 172, 174
- Competition Authority of Kenya (CAK), 201, 203
- Constitution, 183, 199, 205, 354
- Council on Health Research and Development (COHRED), 64
- Countries
- developed, 38, 136, 151, 162, 313, 439
 - late-industrializing, 379
- Culture
- entrepreneurial, 84, 89
 - of innovation, 59
- Defence Advanced Research Projects Agency (DARPA), 438
- Developer community, 189–193
- Developing countries
- innovation in, 152, 382
 - successful, 157
- Development economics and innovation systems, 17, 31
- Development economics of innovation, 25
- Development Facilitation Act (DFA), 45–46
- Digital Equipment Corporation (DEC), 174
- Direct exchange lines (DELs), 171
- Dominant growth-and-competitiveness, 4
- Dutch Agricultural Development and Trading Company (DADTCO), 259–260
- e-government, 126, 134, 154
- Economics
- developing, 21, 25–26, 31, 98, 424
 - emerging, 38–39, 41, 50, 390
 - evolutionary, 18–19
 - growth, 3–4, 33, 38, 62
 - subsistence, 285
- Egypt, agricultural by-products eliminating poverty, 287–288
- greenhouse effect, 287
- industries, raw materials and fuel, 288–289
- innovative initiatives of, 292–293
- Jozour foundation, 288
- palm remnants industry in, 289–292
- policy recommendations, 307–309
- EIH. *See* Emerging innovation hubs (EIH)
- Electronic government, 120–131
- origins and scope of, 105–108
 - See also* Cabo Verde, national innovation system
- Electronic Government Development Index (EGDI), 134
- Electronic government innovation, 110–112, 118, 128, 131, 139, 152, 161
- impressive, 109
- Electronic government platform, 101–102, 133, 139–141
- home-grown, 9, 99
- Emerging innovation hubs (EIH), 337, 383
- identification, 362
 - importance of best practices, 364–366
 - incentive system, 368–369
 - initial stage, 369
 - institutional and political environment, 361–362
 - intellectual property management, 364
 - learning and technology transfer, 366–367
 - new working method, 369–370
 - organizational factor, 363–364
- Enrollment, female, 113–114, 146
- Extended total access communication system (ETACS), 170

- Farmer and industry funding of agricultural research, 340
- Farmer Based Organizations (FBOs), 276
- Farmers
- large-scale, 331
 - sugarcane, 321, 332
- Federal Institute of Industrial Research (FIIRO), 251
- Federal Ministry of Science and Technology (FMST), 264–265
- Film, Video Producers and Marketers Association of Nigeria (FVPMAN), 224
- First Steps Venture Centre (FSVC), 64
- Food research institute (FRI), 261–262
- Foreign direct investments, 33, 141–142
- Gauteng Accelerator Programme (GAP), 55
- Gauteng innovation competition, 55
- GDP growth, 209
- Ghana and Nigeria, cassava innovation system (IS), 260–262
- See also* Cassava
- Ghana Good Practice Centres (GPCs), 253
- Ghana model, 424–425
- Ghana, parts of, 406–407
- Ghana’s economy, 408–409, 415
- Global System for Mobile Communication (GSM), 172
- Good governance and political will, 120–125
- Government
- agencies, 155, 248, 267, 335–336, 372, 406, 430
 - clean, 117, 122
 - critical role, 180, 444
- departments, 66, 71
- entities, 295, 308
- federal, 233, 272
- initiative, electronic, 123, 128, 144
- innovation strategies, 91
- institutions, 318, 440
- intervention, 223, 439
- local, 55, 71, 127
- municipal, 109, 137
- officials, 73, 323
- policy, 24, 87, 90, 168, 183, 408, 417, 422
- procurement, 154, 157
- sectors, 43, 261
- strategies, 88, 91
- Government project, electronic, 127–128
- Government research institutes, 260, 273
- High quality cassava flour (HQCF), 257
- Horizontal co-ordination of innovation policies, 339
- Human development, 4
- Human Development Index (HDI), 113
- Idea for innovation Africa, 5–6
- Identifying and documenting the case studies, 7
- Inclusive innovation systems, 5
- Information and communications technology (ICT), 168
- Information and Communications Technology Sector Policy Guidelines, 181
- Innovation and development system (IDS), 16
- Innovation ecosystem macro and micro factors, 117–120
- Innovation policy coordination, Kenya capacity, 318–320

- case descriptions, 320–321
coordination of, 316–318
data, 321
data analysis, 321–322
exclusive and shared mandates, 328–329
functions and instruments, 316
institutional mandates and designs, 323–324
managing programs and resources for innovation, 324–328
mandate, 318–320
operational practices, 329–331
operational practices for, 318–320
organisational goals, 318–320
- Innovation system (IS), 260
Cabo Verde NIS, 102
development
economics, 14, 17–24
significance of, 24–31
economics of, 15
functional innovation systems, 97
and industrial economic development, 14
for policy learning, 15
regional and national, 41
with sustainable and integrated development, 16
- Innovation-driven African development, 10–11
- Institutional innovation, 128–131
- Integrated Municipal System (SIM), 108
- Interim Governance Committee (IGC), 44
- Intermediate Technology Transfer Unit (ITTU), 401
- Intermediate technology Unit (ITTU), 261
- International Association of Science Parks (IASP), 38
- International Criminal Court (ICC), 199
- International Funds for Agriculture (IFAD), 253
- International monetary fund (IMF), 171
- IS. *See* Innovation system (IS)
- Jozour Foundation
academia, 296–297
agricultural by-products
furniture industry, 300–301
lumber wood industry, 298–300
consumer/market, 297–298
entrepreneur, 294
government/policy, 295–296
local community/producer, 297
non-governmental organisations (NGOs), 298
- Kenya
academia, 203
financial inclusion, 204
government, 202
investors, 203
mobile telecommunications, 168–170
new markets, 204
new ‘mobile’ experiences, 204
private sector, 202–203
technology community, 202
- Kenya Communications (Amendment) Act, 2009, 181
- Kenya Communications Act, 181
- Kenya National Sugar Growers Union (KNSGU), 329
- Kenya Sugar Board (KSB), 315
- Kenya Sugar Growers Association (KESGA), 329
- Kenya Sugarcane Research Foundation (KESREF), 328

- Kenya Tea Development Authority (KTDA), 321
- Kenya Women Sugarcane Farmers Network (KEWSFN), 329
- Knowledge, learning, and competence building (KLIC), 9
- Kwame Nkrumah University of Science and Technology (KNUST), 248
- Least developed countries (LDCs), 112
- Lower middle income country (LMIC), 145
- Macroeconomic policy, 125–126
- Market risk, 200–201
- Mechanization vouchers, 276
- Memoranda of Understanding (MoU), 44
- Microsoft Innovation Centre (MIC), 64
- Mobile money and banking in Kenya, 179–180
- Mobile network operators (MNOs), 168, 444
- Mobile telecommunications growth of, 172–179
in Kenya, 168–170
- Mobile virtual network operators (MVNO), 169
- Multiple structural vulnerabilities, 103
- Namibia Chamber of Commerce and Industry (NCCI), 67
- National Agricultural Research Systems (NARS), 275
- National Business Incubator (NBIA) Conference, 45
- National Business Incubator Association (NBIC), 48
- National Development Plans (NDP), 67
- National innovation system (NIS), 16, 351, 430
- challenges and constraints, 133–136
- diaspora brain gain, 131
- diaspora, role of, 143–144
- electronic government, 120–131
- electronic government platform, 139–141
- global integration and trade policy, 141–143
- ICT adoption, 136–138
- innovation ecosystem macro and micro factors, 117–120
- knowledge infrastructure human development levels, 145–146
- NOSI, role of, 155–159
- private sector development, 152–155
- science, research, and education infrastructure, 149–152
- training and higher education institutions, 146–149
- political foundations of success, 116–117
- telecommunications infrastructure, 132–133
- unlikely success story, 112–116
- NFVCB. *See* Nigerian Film and Video Censors Board (NFVCB)
- Nigeria's Cassava Transformation Plan (NCTP), 279
- Nigerian Film and Video Censors Board (NFVCB), 223
- Nollywood achievements of, 209–212
and banks, 221–222
citizen journalism, 216
connection to audience, 214–215
entertainment value, 216
financing government finance, 219

- local businessmen, 217–219
free trade, 232
growth, 213–214
home market, 232
innovations of
 in marketing techniques, 213
 use of VHS, 212
international economy, 232
investment climate, 220
lessons, 231
low unit cost, 226–227
nature of investment, 228–231
Nigerian Film and Video Censors Board
 national copyright commission (NCC), 223–224
 terrestrial television stations, 224
origin of, 207–208
piracy, 227–228
and policy, 223
and politics, 225–226
recommendations, 232–235
social impact of, 224–225
syndication business, 216–217
Non-governmental organisations (NGOs), 198
Núcleo Operacional da Sociedade de Informação (NOSI), 107

Open Innovation Solutions
 Exchange Platform (OISE), 55
Operational Nucleus for the Information Society, 107
Overseas development assistance (ODA), 116

Palm residues in Egypt, 294
 See also Jozour Foundation
Pan-African innovation systems
 development economics, 17–24
 significance of, 24–30
Policy risk, 200

Political risk, 199–200
Political sphere, 187–189
Political support, 126–128
Postal and telecommunications sector policy statement, 180
Public Financial Management Reform unit, 107

Ready-to-eat (RTE), 250
Reforma da Administração Financeira do Estado (RAFE), 107
Robust policy framework, 443–445
Roots and Tuber Improvement program (RTIP), 247
Roots and Tubers Improvement and Marketing Program (RTIMP), 253

SAN. *See* Sustainable Agriculture Network (SAN)
Science, technology, engineering, mathematics and innovation (STEMI), 28
Sen, Amartya, 18
SIGOF, 108
Silicon Valley, 4, 5, 131, 198, 437
Small and medium enterprises (SMEs), 250
Social Fund for Development (SFD), 305, 308
Southern Africa Innovation Support (SAIS) Programme, 64
Special economic zone (SEZ), 422
Steel sector, in Algeria
 emerging innovation hub (EIH)
 identification, 362
 importance of best practices, 364–366
 incentive system, 368–369

- initial stage, 369
institutional and political environment, 361–362
intellectual property management, 364
learning and technology transfer, 366–367
new working method, 369–370
organizational factor, 363–364
innovation process, 351–361
policy lessons, 377–383
policy recommendations, 383–388
protagonists, and critical issues, 344–351
- Suame Cluster
challenges
agglomeration paradox, 412–413
cost of metal, 414
human capital, 413–414
limited availability, 414
low technology skills, 413–414
rising competition, 412–413
cluster organisation
external linkages, 406–407
government policy, role of, 408–411
inter-firm linkages and agglomeration, 405–406
linkages with technical and university systems, 407–408
specialised firms and labour, 403–404
origins of, 399–402
policy recommendations
automobile manufacturing, 418–419
financing, 419–420
forging new linkages, 415–417
new industrial park, 419
new linkages, 421
Suame Magazine Technical Institute, 420
substitution and industrial policy, 417–418
Sugarcane, 320–321, 325, 327
Sustainable Agriculture Network (SAN), 327
- Tea Board of Kenya (TBK), 315, 331–332
Tea Research Foundation of Kenya (TRFK), 328
Technical and vocational education training (TVET), 439
Technological innovation, 3
Technology & Innovation Centres (TIC), 305, 308
Telecommunications industry, 170–171
See also Mobile telecommunications
Telecommunications infrastructure, 132–133
The Innovation Hub (TIH), 42
national and international visibility, 59
origins of, 43–44
regional policy strategies, 54–57
skills and enterprise development, 57–59
The Innovation Hub Management Company (Pty) Ltd (TIHMC), 46
Thematic deficiency, 18
Tropical Manioc Selection (TMS), 245
United Trading Company (UTC), 258
World Travel Market (WTM) Global Trends Report, 209