## **Appendixes**

## **Appendix A-Acronyms and Glossary**

Acronyms		ICRISAT	-International Crops Research Institute for the Semi-Arid Tropics
AELGA	A6: D 1 4/G	IITA	-International Institute for Tropical
AFR	<ul><li>-Africa Emergency Locust/Grass- hopper Assistance (USAID project)</li><li>-Africa Bureau (USAID)</li></ul>	1PM IRLCO-CSA	Agriculture (Ibadan, Nigeria)  -Integrated Pest Management
AGRHYMET — Center for Application of Agrometeorology and Hydrology for the Sahel (Niamey,		IRLCO-CSA	-International Red Locust Control Organisation for Central and Southern Africa (Ndola, Zambia)
ANT	Niger, affiliated with CILSS)	NOAA	-National Oceanic and Atmospheric
ANE	-Asia/Near East Bureau (USAID)		Administration (U.S. Department of
APHIS	-Animal and Plant Health Inspection Service (USDA)	NSF	Commerce) -U.S. National Science Foundation
ARTEMIS	-Africa Real Time Environmental Modeling Using Imaging Satellites (FAO)	OCLALAV	-French acronym for the Joint Locust and Bird Control Organization (Dakar, Senegal)
ВНС	-Benzene hexachloride, a persistent chlorinated hydrocarbon pesticide	OFDA	-Office of Foreign Disaster Assistance (USAID)
CDIE	-Center for Development Information and Evaluation, USAID	OICD	-Office of International Cooperation and Development (USDA)
CILSS	-French acronym for the Permanent Interstate Committee for Drought Control	OTA	-Office of Technology Assessment, U.S. Congress
D.D.T.	in the Sahel (a regional organization of nine nations: Burkina Faso, Cape Verde, Chad, The Gambia, Guinea Bissau, Mali, Mauritania, Niger, and Senegal)	PRIFAS	-Programme de Recherches Inter- diciplinaire Français sur les Acridiens du Sahel (unit ofthe Frenchresearch agency CIRAD that studies locusts and grass-
DDT	<ul> <li>Dichloro diphenyl trichloroethane, a persistent chlorinated hydrocarbon pesticide</li> </ul>	S&T	hoppers of the Sahel).  -Bureau for Science and Technology (USAID)
DLCO-EA	-Desert Locust Control Organization for Eastern Africa (Addis Ababa, Ethiopia)	SAS	-Surveillance des Acridiens au Sahel, a French network for collecting field
DOE	-U.S. Department of Energy		observations on locusts and grass-
ECLO	-Emergency Centre for Locust Operations (FAO)	SPAAR	hoppers in the Sahel (PRIFAS)  -Special Program for African Agricul-
EIS	-Environmental impact statement, as		tural Research (World Bank)
	required by the National Environ- mental Policy Act of 1%9	SWA	-Office of Sahel/West Africa (USAID/AFR)
EPA	-U.S. Environmental Protection Agency	ULV	-Ultra-low volume (spraying applica-
EROS	-Earth Resources Observation Systems (USGS)	UNDP	tion) -United Nations Development
FAO	-Food and Agriculture Organization of the United Nations	USAID	Programme  -U.S. Agency for International Develop-
<b>FEWS</b>	-Farnine Early Warning System (USAID)		ment
GIEWS	-Global Information and Early Warning System (FAO)	USDA USFS	<ul><li>–U.S. Department of Agriculture</li><li>–U.S. Forest Service (USDA)</li></ul>
GTZ	-German acronym for the German	USG	-U.S. Government
-	Agency for Technical Cooperation	USGS	-U.S. Government -U.S. Geological Survey (U.S. Depart-
ICIPE	-International Centre for Insect Physiology and Ecology (Nairobi, Kenya)		ment of the Interior)

## Glossary

- Band: Cohesive group of gregarious hoppers that march together in daytime and roost at night
- Fax: Also, telefax, facsimile; method for electronic transmission of documents
- Fledgling: A sexually immature adult locust or grasshopper that isabletofly; developmental stage after the last molt
- Grasshoppers: Insects with powerful legs adapted for jumping, belonging to the scientific order Orthoptera; in this report refers to a small number of species of aggregating grasshoppers that can form gregarious bands and swarms
- Gregarious Phase: Period when locust populations form large, dense groups resulting from crowding; involves behavior, color, then shape and physiological changes in the insects
- Hopper: Second stage of locusts' life cycle (between egg and adult) comprised of several instars and characterized by insects' inability to fly
- **Instar:** Growth period between times that grasshoppers and locusts molt
- invasion Areas: Areas, larger than outbreak areas, in which locust and grasshopper bands and swarms can be found after gregarization
- Locusts: Insects within the scientific order Orthoptera, superfamily Acridoidea; distinguished from most grasshoppers primarily by ability to form gregarious bands and swarms
- Maghreb: Area north of the Sahara desert and east of Egypt; countries of Algeria, Morocco, Libya, and Tunisia

- Molt: Process by which hoppers shed their skin periodically, usually occurring five times during the second stage of the insects' life cycle
- Outbreak: Marked increases in locust or grasshopper populations leading to the appearance of gregarious groups; occurs frequently and may mark the beginning of an upsurge
- Outbreak Areas: permanent breeding and gregarization areas that have been identified for major locust species except Desert Locusts; very much smaller than invasion areas of these species
- Plague: Occurrence ofmanybands and swarms over a large area in different regions at the same time
- Recession: Period when gregarious bands and swarms of locusts and grasshoppers are rare, solitary insects predominate
- Recession Area: Area that solitary Desert Locusts occupy at low density; the vast central, drier area of Desert Locust distribution, within its invasion area
- Sahel: Geographically, the semiarid areas of the Sahara Desert's southern edge. Politically, the nine West African countries that are CILSS members.
- Solitary Phase: Period when locusts and aggregating grasshoppers live as individuals, when populations are low-density and scattered
- Swarm: Cohesive group of gregarious adult locusts or grasshoppers that fly together, usually during the day, and rest at night
- Upsurge: Buildup of bands and swarms, especially outside of outbreak areas; infrequently marks the start of a plague