10+1 "super region" definitions used in the LIMITS project

LIMITS adopted a common structure for data reporting that made use of ten "super regions" plus a Rest of World region. Each of these regions is comprised of a number of geographically- and/or culturally-similar countries (thus with relatively similar energy system structures and requirements). The harmonized set of regions has been chosen so that comparisons can be performed across the suite of LIMITS models. Because the native regions in these models all differ, it would otherwise be difficult, if not impossible, to carry out such regional comparisons. The 10+1 super regions offer a kind of "least common denominator" for this purpose: they represent the most disaggregated set of harmonized regions that could be attained. Nevertheless, not even this set provides a perfect match across the LIMITS models; notable discrepancies are marked below, where applicable. The full list of the super regions is given below, along with a sampling of countries that are included in each (the country lists are meant to be representative, not exhaustive).

AFRICA *countries of Sub-Saharan Africa; some models also include North African countries, others do not; for REMIND and WITCH South Africa is included in the REST_WORLD region*

CHINA+ *countries of centrally-planned Asia; primarily China; for some models this may also include Cambodia, Vietnam, North Korea, Mongolia, etc.*

EUROPE *countries of Eastern and Western Europe (i.e., the EU27); some models (except REMIND and WITCH) also include Turkey*

INDIA+ *countries of South Asia; primarily India; for some models this may also include Nepal, Pakistan, Bangladesh, Afghanistan, etc.*

LATIN_AM *countries of Latin America and the Caribbean; Mexico, Brazil, Argentina, and other countries of Central and South America*

MIDDLE_EAST *countries of the Middle East; Iran, Iraq, Israel, Saudi Arabia, Qatar, etc.; for some models this may also include countries of North Africa (e.g., Algeria, Egypt, Morocco, Tunisia); for REMIND the former Soviet states of Central Asia are included*

NORTH_AM *countries of North America; primarily the United States of America and Canada; for REMIND Canada is included in the REST_WORLD region, for WITCH it is included in the PAC_OECD region*

PAC_OECD *countries of the Pacific OECD (Organisation for Economic Co-operation and Development); for most models this primarily includes Japan, Australia, and New Zealand; for REMIND only Japan is included, Australia and New Zealand are included in the REST_WORLD region; WITCH does not include Australia, which is instead part of the REST_WORLD region; WITCH also includes Canada in the PAC_OECD*

REF_ECON *countries from the Reforming Economies of Eastern Europe and the Former Soviet Union; primarily Russia, Ukraine, Kazakhstan, Azerbaijan, etc.; for WITCH Turkey is also included; for REMIND this region only includes Russia*

REST_ASIA *other countries of Asia; South Korea, Malaysia, Philippines, Singapore, Thailand, Indonesia, etc.; for WITCH South Korea is included in the REST_WORLD region*

REST_WORLD *only consists of countries for REMIND and WITCH that are not categorized elsewhere; for REMIND this includes Australia, Canada, Iceland, Norway, New Zealand, Moldova, Serbia, South Africa, Switzerland, Turkey, Ukraine, and some other smaller countries; for WITCH this includes Australia, South Africa, and South Korea*

Note that within this 10+1 framework, "Industrialized" countries refer to those comprising the following regions: EUROPE, NORTH_AM, PAC_OECD, REF_ECON, and REST_WORLD. All other regions are then a part of the "Developing" world. We recognize that this grouping creates some non-trivial inconsistencies for the REMIND and WITCH models, though they are not enough to alter the overall conclusions of the project.