### Globalizing Standardization: The International Organization for Standardization

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#### **RESÜMEE**

Unternehmen und Aktivisten im so genannten "globalen Süden" halten die sozialen und Umweltstandards der *Internationalen Organisation für Normierung* (ISO) für berechtigt und angemessen. Die Legitimität der Organisation resultiert aus dem zunehmenden Einschluss nichtwestlicher Akteure und Vertreter aus kolonialisierten Gesellschaften in die internationale Standardisierungsbewegung, wobei dieser Prozess lange vor der Gründung der ISO im Jahr 1946 begann. Seit den 1950er Jahren trugen die Vereinten Nationen zur Schaffung von Standardisierungsorganisationen außerhalb Europas und Nordamerikas bei, die über kurz oder lang Teil des Netzwerkes der ISO wurden. In den 1960er Jahren förderte die ISO die Partizipation aus "südlichen" Weltregionen, und nach dem Ende des Kalten Krieges schlossen sich nicht-westliche Standardisierungsorganisationen jenen Lobby-Gruppen an, die neue oder erneuerte Demokratien konsolidierten. Gemeinsam erreichte man, dass sich die ISO auch mit den Bereichen Umwelt und Soziales befasste.

#### A Puzzle

The International Organization for Standardization (ISO) is the peak association of a vast global network of volunteers (some 50,000 to 100,000 at any time)<sup>1</sup> who have set voluntary international product standards since the end of the Second World War. In the early 1990s, ISO entered a new field, setting environmental standards, and followed

Different estimates of the size of the ISO network appear in: S. M. Besen/G. Saloner, Compatibility Standards and the Market for Telecommunications Services, in: R. W. Crandall/K. Flamm (eds.), Changing the Rules: Technological Change, International Competition, and Regulation in Telecommunications, Washington, D. C. 1988, pp. 177-220; W. Mattli/T. Büthe, Setting International Standards: Technical Rationality or the Primacy of Power?, in: World Politics 56 (2003) 1, pp. 1-42, p. 7.

that up with a programme of standard setting in social fields – human rights, labour, etc. – culminating in the publication of a comprehensive social responsibility standard, ISO 26000, in October 2010.<sup>2</sup> ISO's entry into the environmental and social standard-setting field paralleled that of dozens of other ostensibly private organizations that began to develop and promulgate voluntary international social and environmental standards in the 1990s.<sup>3</sup> Despite the fact that ISO was created in the 1940s to serve industrial economies, especially those in Europe, but also in North America and Japan, ISO's recent movement into new fields has been welcomed by governments, firms, and activists in China, India, and other countries throughout Asia, Africa, and Latin America. This experience suggests that, while the world's "non-Western" majority may not have fully appropriated the ISO, they have become influential actors within it, working with its executive leadership to make fundamental changes in the organization's focus that may have a significant influence on the global political economy.

This article explains how this has happened, first by placing ISO's recent work on environmental and social standard setting in the context of ISO's traditional role and the larger phenomena of private standard setting in these fields. The article then discusses why ISO and its predecessors – despite their focus on Europe – have always involved actors from other world regions and how this initially incidental involvement led to the earliest globalization of industrial standard setting in the 1970s under the influence of the United Nations (UN) and an ISO executive head who had a strong interest in the developing world. Finally, the article considers how the ISO quality management standards of the 1980s and 1990s – the standards upon which ISO's social and environmental standards are based – gained legitimacy outside of Europe and North America.

### Standardizing the World: The International Organization for Standardization

ISO, as well as its forerunners since the early 20th century, began as facilitators of agreements on industrial standards to create the needed infrastructure for the growing global economy.<sup>5</sup> ISO began as largely nongovernmental organization that brought together engineers and professionals from a few other fields to develop industrial standards, which ISO would endorse as international standards when there was a consensus of similar, national nongovernmental standard-setting bodies. Then agencies of different kinds, but

- C. N. Murphy/J. Yates, ISO, the International Organization for Standardization: Global Governance through Voluntary Consensus, London 2009, ISO 26000: Guidance on Social Responsibility, Geneva 2010.
- 3 K. W. Abbott / D. Snidal, The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State, in: W. Mattli / N. Woods (eds.), The Politics of Global Regulation, Princeton 2009, pp. 44-88.
- "Western" in this case meaning the original OECD countries and not the original Warsaw Pact and Group of 77, or "global South," members. In the historical context of this article, from the late-1940s until the end of the Cold War, the West was an organizing bloc with most global intergovernmental organizations, as was the global South. The global north, the OECD plus the Warsaw Pact, was originally the industrialized world.
- 5 C. N. Murphy/J. Yates, The International Organization for Standardization (2); ISO 26000, p. 1 (2).

primarily private companies, could choose to either adopt the standards or not. Thus, ISO standards were voluntary, based on consensus.

Throughout the late 19th and into the beginning of the 20th century, ISO underwent several changes: Due to the entry of many standard-setting bodies representing countries that regarded standardization to be an essential governmental task rather than something to be left to the voluntary work of various experts, ISO became more of an intergovernmental agency. In addition, it broadened its interest from industrial standards, to management systems, to standards for environmental protection, and then to more general standards for corporate social responsibility. ISO's formidable reputation as an effective and relatively impartial setter of industrial standards seemed to allow the organization to move into these more politicized fields.

Yet, it seeming effectiveness is only part of the story. ISO, formed only in 1946, grew out of a long-standing international social movement of engineers whose origins date back to the 19<sup>th</sup> century. The men, and they were almost all men, who formed the organization had long embraced the idea that establishing universal, hence international, industrial standards would help to build the most efficient global industrial economy, which was seen as a major contribution to prosperity and peace. Moreover, the standardization movement – which was the most common way in which these engineers referred to themselves – already embraced the voluntary consensus process, i.e., making standards via deliberation and consensus among experts involved in the creation and use of the things being standardized. It was seen as the fundamentally better way to create regulatory standards than the two other means that had been traditionally used, namely imposition by the state (whether republican or autocratic) or the operation of the market (whether competitive or oligopolistic).<sup>6</sup>

ISO's origin in this international social movement helps to explain why the organization has always been open to interests and agendas from actors of the "global South". Thus, the progressive inclusion of non-Europeans and representatives of colonized societies within the international standardization movement began long before ISO's establishment. Then, in the 1950s, the UN helped build national standards bodies throughout the developing world that became part of the ISO network. A decade later ISO began subsidizing non-Western participation in its work. And the subsequent, path-dependent sequence of ISO's involvement with standards that proved to be of interest to non-Western companies (first with quality management – ISO 9000, then with environmental systems – ISO 14000, and finally with social responsibility – ISO 26000) brings us to the situation today.

<sup>6</sup> See W. Higgins, Engine of Change: Standards Australia since 1922, Blackheath 2005, pp. 38-43; C. N. Murphy/J. Yates, ISO 26000, Alternative Standards, and the 'Social Movement of Engineers' involved with Standard-Setting, in: St. Ponte/P. Gibbon/J. Vestergaard (eds.), Governing through Standards: Origins, Drivers, and Limitations, London 2011, pp. 162-67.

## The Sequence, the Puzzle, and the Possible Significance: Environmental and Social Standard Setting and ISO's Traditional Role

To understand how the change in focus of a relatively little-know international organization might eventually have a major role in the global economy – a role connected to the new power assumed by non-Western countries within this originally largely Western organization – it is necessary to grasp ISO's traditional role and the reasons why the phenomena of private environmental and social standard setting has taken off over the last twenty years.

ISO might seem an unlikely place to create widely legitimate rules for organizations to follow in order to mitigate harms they do to the environment or to society. ISO is far from some kind of global representative democracy. Historically, it was a creator of *industrial* standards and its standards gained legitimacy because they were formulated by representatives from (engineers from) companies that produced the products in question and from companies that purchased them. ISO is, first and foremost, an organization of *experts* – the peak organization of a global network that sets industrial standards, everything from the spacing of the threads on nuts and bolts to the standard digital codes that make the Internet possible.

Historically, ISO became a bit more representative before it concerned itself with larger social issues. The industrial standard setting performed by the national organizations in the ISO network (the oldest of which was founded shortly before the First World War) was originally done only by the engineers who designed the objects that needed to be standardized in order to allow specific industries, or entire industrial economies, to operate more efficiently. Over time, by the mid-20th century, it became commonplace to include representatives of both the companies that produced the goods in question and those that were their major purchasers. It was only in 1978, in response to the consumer movement in Western Europe and North America, that ISO made room for the involvement of representatives of final consumers and it was only after 2000, with the negotiation of ISO 26000 (the social responsibility standard), that other nongovernmental groups gained access to an ISO process. Even then, the new groups that ISO welcomed into its deliberations primarily came from Europe and North America, although some nongovernmental activists from every part of the world did participate.

ISO's main decision makers, the representatives of the national standard-setting bodies, were, however, more representative, although not perfectly so.<sup>8</sup> ISO now has national members bodies from about 160 countries, but some 50 of these are in categories of membership that allow little active participation in policy development; most of these member bodies with little opportunity for active participation are from the developing

J. Yates/C. N. Murphy, From Setting National Standards to Coordinating International Standards: The Formation of the ISO, in: Business and Economic History online, 4 (2006), pp. 1-19, pp. 7-8, 11.

<sup>8</sup> C. Ruwet, Toward the Democratization of Standards Development? ISO 26000 as an Experiment in Democratizing ISO, presentation at the annual colloquium of the European Group for Organizational Studies, Barcelona, July 2009.

world. Marcel Heires correctly points out that, by almost any measure, representatives of African, Asian, and Latin American firms, social movement organizations, and governments are still underrepresented in most of ISO's work. 9 Nevertheless, they consider ISO social and environmental standard setting to be relatively legitimate. In a survey of participants in the 2004 meeting on the proposed ISO 26000 standard, participants from that regions argued that, in the past, such standards had been designed in the "global North" and "imposed on suppliers from developing countries ... with ISO, 'developing countries can at least influence the standard.""10 Of course, the survey was not sent to representatives from the 50 or so ISO national member bodies that play little role in policy development. Yet, the same views are found in other surveys of firms, which included small and medium enterprises and activists with whom they work, groups that many critics of ISO processes say are those whose views are the most likely to be excluded.<sup>11</sup> These somewhat puzzling findings may simply reflect the extraordinary illegitimacy in the eyes of non-Western companies of most of the other private processes that have been used to create global social and environmental standards since the mid-1990s. After all, even if the ISO process granted greater access to interest groups in the global North than it did to those in the South, at least some non-Western voices were heard, something that has rarely been the case in the standards created by Western nongovernmental organizations, despite their professed concern with global welfare. 12

Most of the existing private social and environmental codes have been initiated by social movement organizations in Europe and North America, groups that are deeply concerned about the environmental impact of economic globalization and about its social impact, especially on less-privileged groups in their own backyards such as workers whose employers threaten to move their jobs abroad. In less-industrialized countries, the mix of interests supporting and opposing global social standards is much more complex. In theory, economic globalization should increase national wealth in Asia, Africa, and Latin America. In practice, it may have done so in many places, but almost everywhere it has increased income inequality as well. Improving environmental standards may, in the long run, be good for everyone, but, to many, there seems to be something unjust about asking a newly industrializing country to curtail its growth in order to meet environmen-

<sup>9</sup> M. Heires, The International Organization for Standardization, in: New Political Economy, 13 (2008) 3, pp. 357-367.

<sup>10</sup> M. A. Balzarova, The Impact of ISO 9000 and ISO 14000 on Standardisation of Social Responsibility: An Insider Perspective, in: International Journal of Production Economics 113 (2008) 1, pp. 74-87, 83.

O. Perera, How Material is ISO 26000 Social Responsibility to Small and Medium Enterprises?, Winnipeg, International Institute for Sustainable Development with the support of the Swiss State Secretariat for Economic Affairs, September 2008; R. Hamann/T. Agbazue/P. Kapelus/A. Hein, Universalizing Corporate Social Responsibility? South African Challenges to the International Organization for Standardization's New Social Responsibility Standard, in: Business and Society Review, 101 (2005) 1, pp. 1-19. On the relative exclusion of SMEs see: T. M. Egyedi/S. Toffaletti, Standardising Social Responsibility: Analysing ISO Representation Issues from an SME Perspective, in: K. Jakobs/E. Söderström (eds.), Proceedings of the 13<sup>th</sup> EURAS Workshop on Standardisation, Mainz 2008, pp. 121-136.

<sup>12</sup> J. Bendell, In whose Name? The Accountability of Corporate Social Responsibility, in: Development in Practice, 15 (2005) 3-4, pp. 362-374.

tal standards necessary to remediate a problem created by the unregulated industrialization of already wealthy societies.

Many of the existing private standards for fair trade or environmental sustainability are familiar to consumers in Europe and North America, made visible via fair trade or green product labels. In fact, the power of consumers is one reason such standards have appeared, but it is just one part of a much larger story. The demand for such standards emerged with the maturation of a fundamentally new manufacturing economy based upon global supply chains, one whose enabling conditions included the radically cost-cutting innovation of containerized shipping, the widespread adoption of liberal trading norms, and the strengthening of the global free trade regime with the formation of the World Trade Organization in 1995. Social movements concerned with the environment, the rights of workers, and human rights in general joined with the secretariats of intergovernmental organizations, government agencies, and firms concerned with social responsibility (whether as part of a niche strategy or due to long-standing management commitments) to push for what John G. Ruggie has called the "re-embedding" of global trade within a set of larger social norms.<sup>13</sup>

As the word "re-embedding" suggests, this kind of push for the social regulation of an expanding capitalist industrial economy has occurred before. It is characteristic of the internationalization of capitalism ever since the Industrial Revolution. In earlier periods, the embedding of industrial capitalism within larger social norms was done by the *state* through the integration of a national economic space in which the disadvantages suffered by people in some regions were overcome by national policies that apply to all (as with the development of the Bismarckian welfare system and the abolition of slavery in the United States). <sup>14</sup> Social embedding has also been supported by *intergovernmental agreements* as was the case with the "embedded liberalism" throughout the OECD world that was the subject of Ruggie's early work on the subject. <sup>15</sup> This was also the case with social embedding supported by the cooperation of the industrialized states in the era of the new imperialism prior to the First World War, the era in which the public international unions, the precursors of the League of Nations and the UN, were formed. <sup>16</sup>

At the beginning of the current wave of economic globalization, the possibility of social regulation through the integration of a larger state was ruled out by the almost universal elite distain for the idea of "world government", something that stood in sharp contrast to the widespread embrace of the idea a generation earlier.<sup>17</sup> At the same time, official

<sup>13</sup> J. G. Ruggie, Taking embedded Liberalism Global: The Corporate Connection, in: idem (ed.), Embedding Global Markets: An enduring Challenge, Aldershot 2008, pp. 231-253.

<sup>14</sup> C. N. Murphy, Globalization and Governance: A Historical Perspective, in: R. Axtmann (ed.), Globalization in Europe, London 1998, pp. 144-163.

<sup>15</sup> J. G. Ruggie, International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order, in: International Organization, 36 (1982) 4, pp. 379-415.

C. N. Murphy, International Organization and Industrial Change: Global Governance since 1850, Cambridge 1984.

<sup>17</sup> T. G. Weiss, What happened to the Idea of World Government, in: International Studies Quarterly, 53 (2009) 2, pp. 253-271.

intergovernmental cooperation to alleviate concerns about a "race to the bottom" in social and environmental standards proved impossible, due not to the total absence of elite interest but to the lack of interest of a key player, the United States, whose Republican Party presidents (especially Ronald Reagan and George W. Bush) embraced a vision of global *laissez faire* and whose Democratic Party presidents (Bill Clinton and Barack Obama) were unwilling to use political capital to overcome the opposition of conservative legislators. In addition, the Democrats, in particular, faced a problem of reconciling the conflicting interests of the supporters of some form of re-embedding of the global economy: The Democrats' core constituents in the US labour movement wanted to use enforced global standards as a way to protect privileged labour in industries that otherwise would no longer be viable against lower-wage competitors in the developing world, whereas US advocates for the poor often saw merit in the position of most non-Western unions that the globalization of manufacturing was largely positive, but that international support for their rights to organize, strike, and bargain with employers was welcome.<sup>18</sup>

In a world in which official legal action to create social and environmental regulation of an economy that had grown beyond the bounds of the old order was impossible, private agreements among like-minded actors appeared to be the only alternatives, hence the recent explosion of private global social and environmental standards. Such standards could be given teeth through a variety of means: Consumers could themselves become the enforcers through their purchasing decisions. Governments, both in their role as consumers and as adjudicators of disputes between private actors, could refer to specific private standards as ones that must be met by their suppliers or as ones that would not be considered barriers on the level economic playing field that governments maintain. 19 Governments that control particularly important gateways in the world economy, such as port authorities or agencies that certify the harmlessness of goods in trade may play a particularly important role if they reference global social or environmental standards in their work.<sup>20</sup> In addition, companies spurred on by consumer or government pressure to adopt such standards may be able to learn how to cut cost in other areas, thus remaining competitive while normalizing achievement of the higher standards as a cost of doing business.<sup>21</sup> Finally, companies that have absorbed the costs of higher standards may develop an interest in a new kind of "level playing field", one that imposes the same costs on all of their competitors via strong governmental regulation.

C. Candland, Core Labour Standards under the Administration of George W. Bush, in: International Labour Review, 148 (2009) 1-2, pp. 169-181.

<sup>19</sup> S. Bernstein/E. Hannah, Non-state Global Standard Setting and the WTO: Legitimacy and the Need for Regulatory Space, in: Journal of International Economic Law 11 (2008) 3, pp. 575-608; D. A. Wirth, The International Organization for Standardization: Private Voluntary Standards as Swords and Shields (= Boston College Legal Studies Research Paper 173), Boston 2009.

<sup>20</sup> E. R. DeSombre, Flagging Standards: Globalization and Environmental, Safety, and Labor Standards at Sea, Cambridge 2006.

<sup>21</sup> R. M. Locke / M. Romis, The Promise and Peril of Private Voluntary Regulation: Labor Standards and Work Organization in two Mexican Garment Factories, in: Review of International Political Economy 17 (2010) 1, pp. 45-74.

Despite this wide range of mechanisms that could contribute to the effectiveness of private standards, we can only tell Panglossian tales about their *possible* impact on the social and environmental externalities of the new global economy. Overall assessments of the effect of existing codes are mixed and their adoption has been far from universal.<sup>22</sup> Nevertheless, if widely legitimate private environmental and social standards were to emerge, the possibility that they could become effective exists. Thus, the uniquely wide legitimacy of the standards negotiated within the International Organization for Standardization is of significance; it is the reason that the globalization of ISO standard-setting matters.

# Toward an Explanation: The Early Embrace of Asian and Latin American Engineers

To explain how ISO standard setting became global in the first place, we have to go back to its beginning. ISO grew out of an international social movement of late 19th-century applied scientists and engineers. There is no doubt that setting fundamental standards (scientific constants and standard measurements) as well as creating industrial standards that would allow the products and services of different firms to work well with one another are basic, practical problems of industrial economies. As a consequence, the number of standard-setting projects over a wide range of activities accelerated throughout the 19th century. Many of the 19th-century standardizers saw no implications of their work beyond the immediate, practical problems that they faced – allowing different telegraph or rail systems to be connected, assuring that steel buildings would not collapse, and the like – but standard setters in a number of fields – especially those that were the intimately involved in recent advances in science such as electrical engineers – saw their work as something of more transcendent importance. They believed that standards would contribute to enlightenment, the improvement of the human condition (via the prosperity it would encourage), and even help establish world peace.

Many of the key figures in the global standardization movement first became acquainted with one another at the meetings aimed at creating fundamental electrical units that were held at the late 19<sup>th</sup>-century world's fairs, culminating in St. Louis in 1904.<sup>23</sup> They developed the goal of creating both national standard-setting bodies and global organizations that would carry out the movements' larger goals, forming the International Electrotechnical Commission (IEC) in 1906 and assuring the establishment of national bodies in

<sup>22</sup> The most comprehensive assessment has been done relative to labour standards, see: J. M. Witte, Realizing Core Labor Standards, the Potential and Limits of Voluntary Codes and Social Clauses: A Review of the Literature, Paper prepared for the Programme on social and environmental standards of the German Federal Ministry for Economic Cooperation and Development, 2008.

<sup>23</sup> L. R. Lagerstrom, Constructing Uniformity: The Standardization of International Electromagnetic Measures, 1860–1912, dissertation, University of California, Berkeley, 1992; B. J. Hunt, The Ohm is where the Art is: British Telegraph Engineers and the Development of Electric Standards, in: Osiris, 2<sup>nd</sup> series, 9 (1994) 1, pp. 48-63.

most of the major industrial nations (including the United Kingdom, France, Germany, and the United States) by 1920. The leading figure in the movement, Charles Le Maistre, a British electrical engineer who began as a secretary to the heads of the discussions on fundamental units at the 19<sup>th</sup>-century world's fairs, variously served as chief of the IEC, the British national standards organization, the short-lived interwar global organization that was ISO's predecessor, and ISO itself.<sup>24</sup>

From its beginning, the global standards movement was multi-regional and multi-racial, due, in large part, to its connection to the electrical industry and the central role of Japan in late 19th-century innovation in that field. Toshiba's Ichisuke Fujioka (later the president of the Tokyo Electric Company) was one of the most prominent participants in standardization before the First World War. He and a number of his Japanese colleagues made the handful of foreign members of the original (British) Institution of Electrical Engineers at least as early as 1884, and his passing (in 1918) was noted with great sadness by both the British and US associations.

The centrality of the Japanese members in the group that formed the early standards movement is of particular significance because it countered the influence of the contemporary rise of "white racism". As Marilyn Lake and Henry Reynolds's masterful *Drawing the Global Colour Line: White Men's Countries and the International Challenge of Racial Inequality* (2008) makes so painfully clear, elite reaction to late 19<sup>th</sup>-century egalitarian claims made by Africans and Asians both led to the rigidifying of the racial boundary that would eventually create the "Third World". <sup>25</sup> As Michael Adas has argued, Japan's technological prowess created a partial but uneasy exception to the rule. "After all, the Japanese had done what no other non-Western people had been able to do: remake their society in the image of industrial Europe." <sup>26</sup> Within the small, almost intimate transnational community of elite electrical engineers – the seed of the standards movement – Japan's inclusion was not only less problematic it also may have contributed to a scepticism about, or at least an inattention to, the new white racist ideology that was becoming so commonplace among the global elite.

This is not to say that negative stereotypes connected with the new white racism disappeared. In the interwar years, the proselytizing LeMaistre was constantly travelling to the Americas, the Far East, India, and Africa encouraging the establishment of new national – sometimes meaning "Dominion" or "colony-wide" – standard-setting bodies and rarely succumbing to the rhetoric of Anglo-Saxon dominance. His US colleague, Paul Agnew, of the American Engineering Standards Committee (AESC), was a bit more a man of his time. From 1923 through 1925, the AESC took on the role of encouraging the

<sup>24</sup> J. Yates/C. N. Murphy, Charles Le Maistre: Entrepreneur in International Standardization, in: Enterprises et histoire, 51 (2008), pp. 10-57.

<sup>25</sup> The term has been used, beginning in the 1950s, by scholars sympathetic to anti-colonial and non-aligned movements. A somewhat Western-centric backformation from that meaning the "First World" came to mean the OECD countries and the "Second World" the Warsaw Pact countries.

<sup>26</sup> M. Adas, Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance, Ithaca 1989, p. 365.

development of standardization associations throughout Latin America. Nevertherless, the report of the AESC representative to the first Pan-American Conference on Standardization (held in 1925) offered some cautious words about what could be expected, emphasising:

the importance of an understanding of the fundamental differences in the two civilizations [present in America] and in the cultural background from which they developed. Such an understanding would be necessary in any active cooperation in standardization matters. The Anglo-Saxons were chiefly concerned with and interested in processes and results. The Latin peoples and Latin-American's in particular cared less for industrial processes and results, but were more interested in the artistic and emotional side of cultural and industrial development.<sup>27</sup>

Yet, it is still significant that, despite the dominance of the white ideology, engineering skill always trumped race in early 20th-century standards movement. Adas's *Machines as the Measure of Men* rather than Lake and Reynold's *Global Colour Line* was what mattered most. Later in 1925, at the third interwar "informal conference of the national standards bodies", engineers from Latin America held central positions<sup>28</sup> and after the Second World War, in the meetings that founded ISO, Latin American engineers were prominent, alongside a unified group of engineers from what would soon be India and Pakistan as well as an equally undivided group of standard setters representing Palestine.<sup>29</sup>

In 1961, Mohammed Hayath, the electrical engineer who had played a central role in the development of India's power grid since completing his studies in 1923, used the occasion of the "Seventh Charles Le Maistre Memorial Lecture" to recall this early embrace of Asian and Latin American engineers and to praise the standardization movement for creating a truly open, global scientific community whose actions were of much greater significance to the developing world than to the already industrialized nations." As Hayath made clear, engineers in the developing world never questioned that their profession was a universal, global one, and they had every reason to embrace the ideals of world peace prosperity that animated the movement and to embrace the movement's organization: ISO.

<sup>27</sup> American Engineering Standards Committee, Minutes, 19 April 1925, #1356.

<sup>28</sup> It was in fact the third, but it was designated as the second, because the meeting of 1921 was not considered formal enough to be called an "informal conference", American Engineering Standards Committee, Minutes, 25 November 1925, #1446.

<sup>29</sup> See the account in L. C. Verman, Standardization: A New Discipline, Hampden (CT) 1973, p. 178.

<sup>30</sup> M. Hayath, What the IEC means to the Developing Countries (= Seventh Charles Le Maistre Memorial Lecture), Geneva 1961.

# **UN Technical Assistance, Engineering Schools, and New National Standard-Setting Bodies**

Arguably, at their beginnings, ISO was more open to the concerns from and in the non-European world than was the UN. Certainly, Mark Mazower's revisionist history has reminded us of the imperialist origins of the UN.<sup>31</sup> By the 1950s that situation reversed. In part because the Cold War conflict permeated almost everything that the UN did, the competition between the United States and the Soviet Union for support in Africa and Asia led to the UN's increasing support of decolonization and development. At the same time, because ISO remained one of the few global institutions in which the Cold War did not dominate everything else, the organization retained its focus on serving the newest industries and the countries in which they were located. Writing in 1973, Lal Chand Verman, one of ISO's great champions, noted that voices from Africa, Asia, and Latin America remained less involved in ISO's work than those from North America and Europe, even though "in some developing countries of the East, like India and Iran, considerable experience has been accumulated during the last two decades in getting the national standards movement underway."<sup>32</sup> Much of that promotion of the standards movement in the global South came as the result of the UN's work there.

Most people are unaware of the extent to which the UN system is a field-based organization concerned with development; about 95% of its staff focuses on the non-European world. It has been this way almost since the beginning. In the 1950s, almost all of the UN agencies (from the International Civil Aviation Organization to the World Health Organization) found that the only way they could expand was by placing technical assistance experts in the Third World, an activity that was relatively well supported by the United States, other Western allies, and even the Soviet Union. A major early focus of this work was the establishment engineering institutions. Many of the campuses of the Indian Institute of Technology, Turkey's premier Middle East Technical University (METU), the University of the West Indies' Faculty of Engineering, and scores of other leading engineering schools throughout the world owe their origin to UN technical assistance projects of the 1950s and early 1960s. Often at the same time the UN was establishing a country's major engineering school, it would also sponsor the work of a technical assistance advisor who helped local engineers establish a national industrial

<sup>31</sup> M. Mazower, No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations, Princeton 2009

<sup>32</sup> L. C. Verman, Standardization, p. 101 (29).

<sup>33</sup> More than 143,000 of the UN system's 179,000 civilian staff and all of the 100,000 UN peacekeepers work in the more than 165 developing countries where the UN has country offices. Moreover, at least two-thirds of the system's headquarters staff (about 24,000 of 36,000) also works on development. However, the operation of the system is spread across more than 50 different agencies, each with a separate board of member states and a separate upper administration. In the field, the chief UN officer usually only has administrative authority over the entire UN staff during periods of emergency. See: S. Browne, The United Nations Development Programme and System, London 2011, p. 2.

<sup>34</sup> C. N. Murphy, The UN Development Programme: A Better Way?, Cambridge 2006, chapter 4; S. Francis, The IITs in India: Symbols of an Emerging Nation, in: Südasien-Chronik/South Asia-Chronicle 1 (2011), pp. 293-326.

standard-setting body. Thus, in 1954, when the UN office in Ankara helped establish METU, it also sponsored a young Swedish engineer, Olle Sturén, to help set up Turkey's national standard-setting body.<sup>35</sup>

Sturén later became ISO's longest serving chief executive. In that role and in the positions he filled both immediately before and shortly afterward, he was the most influential figure in the organization from the mid-1960s through the late 1980s. Throughout his tenure, he regularly travelled to promote standardization in Argentina, Bahrain, Barbados, Bolivia, Brazil, Chile, China, Colombia, Cuba, Cyprus, Egypt, Ghana, Guatemala, Jamaica, Hong Kong, India, Indonesia, Iran, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Liberia, Malaysia, Mauritius, Mongolia, Morocco, Nigeria, North Korea, Pakistan, Panama, Peru, Philippines, Saudi Arabia, Seychelles, Singapore, South Africa, South Korea, Sri Lanka, Taiwan, Tanzania, Thailand, Trinidad and Tobago, Turkey, and Venezuela, many of them many times, between 1964 and 1985. His itineraries read like the list of countries in which the UN had helped create engineering institutions ten years earlier. In 1972, Sturén appointed the head of Ghana's member body, Robert Oteng, to create a system of assistance for standard-setting bodies in these world regions, thus devoting much of the organization's budget to encouraging non-Western participation. 

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### ISO 9000, Access to Northern Markets, and the non-Western Role in ISO 14000 and 26000

During his tenure, Sturén's internationalism was supported both by the force of his own personality as well as by the legacy of the UN's development work, but it survived him due to the success of an ISO product that arrived, opportunely, just as he was leaving the scene. In 1987, ISO published the first of its quality management standards, the ISO 9000 series. The series is a set of "management systems standards" that describe how organizations can adopt an orientation toward the satisfaction of their customers or clients, then document and monitor the organization's processes, and use that information to improve what they do. Certification of ISO 9000 compliance requires an external party to report on what the organization has done and many ISO member bodies have developed extremely lucrative businesses providing that.

Few non-Western national standard-setting bodies directly benefited in this way from the ISO 9000 boom, but ISO's reputation did as well since non-Western companies gained from the standard. Most firms that adopt ISO 9000, especially those in the less industrialized world, have done so in order to increase their sales: Adherence to the standard serves as proof to foreign purchasers that a relatively unknown non-Western supplier will

<sup>35</sup> C. Murphy/J. Yates, The International Organization for Standardization, p. 21 (2).

<sup>36</sup> Sturén Papers, Notebook listing travel from 1953 onwards, currently in the custody of Lars and Lolo Sturén prior to donation to the archives of the Standardiseringskommissionen i Sverige.

<sup>37</sup> C. N. Murphy/J. Yates, The International Organization for Standardization, p. 21 (2).

be up to the task of providing high quality products.<sup>38</sup> The significance of the assurance that ISO 9000 provides is so great that even Japanese firms that were pioneers in Quality Management and have much better Quality Management Systems (QMS) in place, adopt ISO 9000 in order to reassure global customers.

Moreover, because ISO has continuously updated ISO 9000, Japanese QMS consultants have become deeply involved in the standard's refinement, one of the first manifestations of a Japanese interest in creating "world standards that start from Japan". <sup>39</sup>

Companies in the non-European world have also been able to use ISO 9000 certification as a mechanism for signalling a commitment to quality and as a way of beginning to build a QMS culture. The purchasing requirements of some EU governments seem to have provided some incentive for African, Asian, and Latin American companies to adopt the standard, but requirements of multinational firms appear to be even more important. When these firms can comply with ISO 9000, they can enter some new markets and help pull their national economies up from the bottom of the supply chain. At the same time, as they gain more experience with ISO 9000, they are able to take a more active part in the formulation of related ISO standards, a major factor in the legitimacy of the environmental and social responsibility standards that have been built on the base of ISO 9000.

The first of these standards, the ISO 14000 series (first published in 1995), creates a management system that allows organizations to focus on continuously diminishing their negative impact on the environment. By 2005, the weight of the accumulated evidence suggested that those firms adopting the standard were also complying more fully with existing environmental regulations than were otherwise similar firms. In addition, the ISO 14000 firms polluted less than they had in the past, and less than their competitors did. Moreover, one well-designed study indicated that the desire of firms to get into markets where ISO 14000 was an important voluntary supplement to, or substitute for, strong environmental regulation was fueling the rapid adoption of the standard around the world. As

Until 2005, the majority of the organizations certified as ISO 14000 compliant were in Europe and North America, but this is changing rapidly. The majority are now in East Asia with almost one-quarter in China alone.  $^{44}$  The ISO 14000 standards have become

<sup>38</sup> M. Potoski/A. Prakash, Information Asymmetries as Trade Barriers: ISO 9000 increases International Commerce, unpublished paper, University of Washington, Department of Political Science, 15 January 2008, p. 2.

<sup>39</sup> C. Stortz, Compliance with International Standards: the EDIFACT and ISO 9000 Standards in Japan, in: Social Science Japan Journal, 10 (2007) 2, pp. 217-241, 220.

<sup>40</sup> E. Neumayer / R. Perkins, Uneven Geographies of Organizational Practice: Explaining the Cross-National Transfer and Diffusion of ISO 9000, in: Economic Geography, 81 (2005) 3, pp. 237-60.

<sup>41</sup> K. Nadvi/F. Wältring, Making Sense of Global Standards, Papers of the Institut für Entwicklung und Frieden der Gerhard-Mercator-Universität Duisburg, 58, 2002, pp. 1-48, 4.

<sup>42</sup> A. Prakash/M. Potoski, The Voluntary Environmentalists: Green Clubs, ISO 14001, and Voluntary Environmental Regulation, Cambridge 2006, pp. 146-171.

<sup>43</sup> A. Prakash/M. Potoski, Racing to the Bottom? Trade, Environmental Governance, and ISO 14001, in: American Journal of Political Science, 50 (2006) 2, pp. 350-364.

<sup>44</sup> ISO Survey 2010: Principal findings, URL: http://www.iso.org/iso/iso-survey2010.pdf, access on 16.09.2013.

increasingly commonplace in the large and rapidly growing economies of China, Brazil, and India. "Environmental quality" has become one aspect of the identity of at least one part of the private sector in these and other rapidly industrializing countries. In China, this environmentalism was promoted by the close relationship between an environmentally committed part of the UN system, the UN Development Programme (UNDP), and many of the most politically influential economic reformers who came to power in the late 1970s. The effort is reflected in the 2008 decision of Chinese regulators to require that firms listed on the Beijing Stock Exchange provide a great deal more information about their environmental impact, something that spurred the further explosion of ISO 14000 adoptions.

Even greater commitment is evident in Brazil where, even without a legal requirement, over half of the major national firms publish such reports. Brazil shares some characteristics with other developing countries where reporting on environmental quality and on broader issues of corporate social responsibility has become commonplace. <sup>47</sup> Like China a decade earlier, Brazil in the 1990s shifted from an inward-oriented (import-substitution) development strategy to one of openness to the world market. Also like China's, Brazil's shift in economic direction was supported by close relations with UN organizations that promoted ecological and social sustainability. <sup>48</sup>

Some Brazilian corporate leaders argue that the country's sponsorship of the UN's 1992 Earth Summit, which took place in Rio de Janeiro, and the 2003 World Social Forum, in Porto Alegre, reflected a general commitment to the proposition that "a world that is healthy and equitable ... can be built only if sustainability is integrated into the management of corporations, organizations, and the State itself." This commitment reflects the power of environmental and consumer organizations and labour unions, part of a vibrant civil society that has grown since Brazil's return to electoral democracy in the 1990s, something in keeping with similar patterns in other developing countries where ISO 14000 is widely adopted. In addition, part of Brazil's story is that of other rapidly industrializing countries that have faced major financial crises that originated abroad (e.g., Argentina, Indonesia, and Thailand). A history of such crises have forced Brazilian banks to have close ties to the public sector and to develop an important role in the daily

- 45 C. N. Murphy, UN Development Programme, pp. 177-181 and pp. 274-275 (32).
- 46 Zhou Xin, China Orders Listed Firms to be Greener, in: Reuters, 25 February 2008, URL: www.reuters.com/article/environmentNews/idUSPEK13520080225.
- 47 S. Shanahan/S. Khagram, Dynamics of Corporate Responsibility, in: G. S. Drori/J. M. Meyer/H. Wang (eds.), Glo-balization and Organization: World Society and Organizational Change, Oxford 2006. They look in detail at Brazil and South Africa and present supporting data on India and Thailand.
- 48 These included UNDP as well as the UN Environmental Programme. In Brazil, many important parts of the government became (and still are) "UNDP projects", which allowed the new democratic leaders to displace entrenched civil servants in parts of the state structure that would not respond to the new policy directives, see: C. N. Murphy, United Nations Development Programme, pp. 211-220 (32).
- 49 R. Young, Dilemmas and Advances in Corporate Social Responsibility in Brazil: The Work of the Ethos Institute, in: Natural Resources Forum, 28 (2004) 4, pp. 291-301, 292. Young heads the Ethos Institute, a trade association of more than 800 companies with aggregate revenues equal to about one-third of Brazil's GDP.
- 50 Ibid.; S. Shanahan / S. Khagram, Dynamics of Corporate Responsibility, pp. 203, 222, (45).

life of many citizens, helping them buffer the wild fluctuations of inflation and devaluation. "Against this backdrop", argue two scholars from Harvard's Hauser Center for Non-Profit Organizations, "banking was one of the first industries in Brazil to consider its role as a corporate citizen." The power of the financial sector, in turn, has influenced firms in other sectors of the Brazilian economy.

One consequence of this interest was a decision by the Brazilian national standard-setting body, Associação Brasileira de Normas Técnicas (ABNT), to establish a national corporate social responsibility standard that could be monitored and certified in the same way as ISO 9000 and ISO 14000. The standard was first published in 2004. <sup>52</sup> Simultaneously, ABNT joined national standard-setting bodies from other rapidly growing economies to press ISO to develop a general standard for corporate or "organizational" social responsibility, a standard that would cover environmental sustainability and the promotion of human rights, including the basic rights of workers, ISO 26000.

Two member bodies served as the secretariat of the negotiations on the standard, the one being Brazil's ABNT, the other one Sweden's national body. The heavy financial burden of the secretariat was borne by those bodies, by various ministries of the two national governments, and by a number of private firms in both countries that have been involved in the larger movement for corporate social responsibility, including Ericsson, the telecommunications giant, and Skanska, the global construction firm that is managing the renovation of the UN's New York headquarters, and companies that contribute to Brazil's Ethos Institute, a business group that has long supported social responsibility initiatives.<sup>53</sup>

After seven years of negotiation, the ISO process resulted in a massive document that serves as a guidance standard for social responsibility. Unlike with ISO 9000 and 14000, no system for monitoring compliance with the standard has been sanctioned by ISO. Nevertheless, relatively similar standards have been and will be made the subject of such mechanisms. Brazil's ABNT NBR 16000 series is one of the most prominent.<sup>54</sup> Of course, enforcement of a unified global code of corporate social responsibility will not be a panacea for all the problems of a weakly regulated global economy. A group of South African social scientists acknowledges that if a global social responsibility standard included an auditing mechanism, it would allow the South African government to husband its regulatory resources and focus on firms that are non-compliant. On the other hand, it is unlikely, they argue, that any global standard will highlight the corporate activities that are socially the most important in any particular context. For example, in South Africa, the government-mandated Black Economic Empowerment initiative is concerned with increasing the black share of the private sector and management posi-

<sup>51</sup> S. Shanahan / S. Khagram, Dynamics of Corporate Responsibility, pp. 215-221 (45).

<sup>52</sup> F. Duarte, Working with Social Responsibility in Brazilian Companies: the Role of Managers' values in the Maintenance of CSR Cultures, in: Journal of Business Ethics 96 (2010) 3, pp. 355-368.

<sup>53</sup> SIS, Vägledning för Socialt ansvarstagande ISO 26000, January 2007, pp. 27, 28; GT Ethos – ISO 26000.

<sup>54</sup> A. S. Henriques, The Brazilian Standards and Certification Programs for Social Responsibility and Forests, paper presented at the ISO 26000 conference, Quebec, 15 May 2009.

tions in all sectors, goals that are unlikely to be at the center of any global standard, and which may be prohibited by some standards. $^{55}$ 

Meanwhile, the more general problem involved with establishing global social and environmental standards remains: In many fields, the interests of the majority in the global North and the majority within the global South differ. Peter Utting argues, more generally, that in most global corporate social responsibility discussions, "priority issues are often those of particular concern to activists and others in the North. [...] Interests relevant to particular stakeholders in developing countries [...] get short shrift."<sup>56</sup>

This has not happened in the discussions leading up to ISO 26000. Why? Non-Western opinions were included in the ISO discussions because representatives from that parts of the world wanted to be in the discussions, they were welcomed there, and they were capable of taking part. They wanted to be there both because (for some powerful firms in states that have recently returned to democracy) social and environmental responsibility have become part of their identity and, for many more earlier ISO management systems standards provided a relatively inexpensive entre to global markets. They were welcomed there due to the decades of support of non-Western participation encouraged by the ISO executive and by the deeper ideology of the standard-setting movement, which has always treated engineering or scientific expertise as the most important requirement for inclusion in its processes. And they were able to participate due both to the support that ISO itself has provided to the formation of national standards bodies in the non-European world and to the larger support given to non-Western engineering and standard setting by the UN system.

#### So What?

Arguably, ISO 26000 represents the first time that non-Western actors within ISO have used the organization to create a fundamentally new kind of standard that is likely to influence the direction of the organization's future development and that may have some impact on the global political economy. Nevertheless, this development cannot be understood as a challenge to ISO's basic framework or to the kind of "global social movement of engineers" out of which ISO developed. In many ways, the development seems like a logical extension of ISO's progressive internationalist organizational culture and history. ISO began as an organization of internationalist engineers whose work had implicitly challenged the elite racism that was typical in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Throughout ISO's history, non-Western standard setters have always been at the table, even if they were not active, and they have been increasingly at the table due to the interest of the United Nations and of the ISO leadership in promoting industry throughout the developing world. When ISO expanded its work from industrial standard setting to

<sup>56</sup> P. Utting, CSR and Equality, in: Third World Quarterly, 28 (2007) 4, pp. 697-712, 700-701.

management system standard setting with the ISO 9000 quality management standards, it began focusing on something in which its non-Western members had a stake. The simultaneously arising interest of many non-European firms and activists in developing environmental and social regulatory standards that took into account concerns broader than those of Western activists, made ISO and its national standard-setting bodies logical places to propose such standards, and the act of doing so made it clear that ISO standard setting has now become more, to some extent even truly global.